Nurse-patient verbal interaction : an analysis of recorded conversations in selected surgical wards.

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NURSE-PATIENT VERBAL INTERACTION

An Analysis of Recorded Conversations in Selected Surgical Wards

by

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Thesis submitted for the degree of Ph.D.

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"Praskovya Fiodorovna came in well satisfied with herself but yet with a slight guilty air. She sat down, asked how he was, as he saw, simply for the sake of asking and not in order to find out."

The Death of Ivan Ilyich (Tolstoy, 1886).

ACKNOWLEDGEMENTS

This research could not have been undertaken without the help and enthusiasm of many different people.

I am grateful for the support of the Department of Health and Social Security who granted me a nursing research fellowship to undertake this study. I would like to thank my supervisor Professor Jack Hayward, for his guidance, and express my gratitude to Jan Stockdale, Jon Ogborn, Will Bridge and all my friends at Chelsea College for their advice, suggestions and encouragement. I also thank Mandy Rose, Angie Stamatakis and Mary Hansford who gave so much time to endless coding, and Sue Sycamore who typed the final manuscript. My family have remained understanding and supportive throughout and I am indebted to them. Last, but by no means least, I must express my gratitude to every nurse and every patient who was involved in this research.

ABSTRACT

This research examines the nature and role of verbal interaction in nursing and describes research methods which were developed for use in the collection and analysis of nurse-patient verbal interaction data.

Data were collected in the form of audio-tape and video-tape recordings of nurse-patient conversations which occurred on surgical wards. These data were analysed on a number of dimensions. Quantitative analysis of the data revealed a pattern of short conversations, mostly limited in content to task-related or treatment-related topics and primarily initiated by the nurses. Panel descriptions of the attributes of a random sample of conversations from the data were collected and factor analysis of attributes was undertaken. This analysis demonstrated the existence of two major factors which are consistent with recognised psychological dimensions of 'warmth - coldness' and 'dominance - submission'. The overall picture which emerged from the panel descriptions of nurses' responses, showed them to be 'friendly', 'superficial' and 'stereotyped'. This picture was substantiated by analysis of the types of verbal behaviour and strategies used by nurses in conversation with patients, which revealed that nurses tended to use strategies which effectively 'discouraged' communication with patients. There was little evidence from the data collected in the study of the use of 'encouraging' strategies.

The multidimensional framework developed during this research was found to have value in terms of analysing, describing and interpreting the content of nurse-patient conversations. Working from this framework it is argued that nurses may exercise control over the conversations they have with patients by limiting them in length and content,and that the use of blocking or avoidance mechanisms may be a function of inadequate or inappropriate verbal skills. The implications of the research findings for nursing care, and the value and limitations of using the methods employed in this study are discussed. Suggestions are also made for further research in this area.

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a) Aims of the Research

The focus of this study is the content and process of those elements of nurse-patient communication commonly labelled 'conversation'. Nurse-patient conversation is defined as any dyadic verbal interaction occurring between one nurse and one patient regardless of context or purpose. The research described was undertaken in order to explore aspects of the verbal interaction which takes place between nurses and patients. The study had two aims. First, to develop a method for collecting an accurate data base of actual dyadic (one-to-one) nurse-patient conversations as they occurred on the ward. Second, to develop an approach to systematically describing and analysing these verbal interaction data - an approach which, if successful, could potentially provide a conceptual framework for understanding, teaching and testing aspects of nurse-patient communication.

b) Context and Perspective

The research took place in the U.K. between October 1977 and October 1980 and was concerned with the collection and analysis of nurse-patient verbal interaction data from selected surgical wards in three hospitals.

While the focus of this study was upon verbal aspects of communication it recognised that such interactions represent only part of the complex processes of communication which take place between nurses and patients. The decision to concentrate on the verbal elements of nurse- patient communication was made for practical reasons. It has been said that in communication amongst humans "nothing never happens" (Pittinger et al 1960, p 234). Certainly many researchers have illustrated the immense detail of human interaction processes and some of this research into paralinguistic, kinesic, gestural and proxemic communication is reviewed by Argyle (1972). It is

inevitable, therefore, that nurses and patients communicate with each other in many ways. They communicate by the content and style of their speech, their accent, tone of voice, gestures, facial expression and posture. However, there is little doubt that as Hinde (1972) says," The main channel of communication in man is verbal." (p 358)

Attempts have been made by a few researchers in nursing and related fields to capture and describe as many of these elements as possible. For example, Scheflen (1973) spent 10 years analysing, with the aid of a complete research team, one psychotherapy interview session. Again looking at psychiatric interviews, Pittinger et al (1960) examined the first five minutes of such a session. Daubenmire et al (1978) studied communication patterns between nurses and patients in the U.S.A. using synchronology and a computerised data storage system.

However, while such complex studies are possible they are time consuming, require many researchers and involve the use of complex recording and storing facilities. In addition the more closely such data are examined the more data will be generated. It has also been argued that it may never be possible to handle and exploit to the full such highly complex data; the problems and disadvantages of such a process are described by Labov and Fanshel (1977). It was the recognition of these problems which influenced the decision to restrict the focus of this study to verbal interaction. This in no way denies the importance of non-verbal communication in nurse-patient interaction, nor the relevance of other factors emanating from individuals or the social milieu which can influence communication. Such factors are recognised and it is further suggested that the ability to describe one aspect of nurse-patient interaction may lead to an improved ability to recognise, describe and understand some of these other elements and factors.

Thus the research presented in this thesis reports an in-depth study of a data base of nurse-patient verbal interactions which took place on surgical wards. The decision to focus on surgical wards was determined by factors described in Chapter 2. While it was not assumed that these wards are 'typical', it was hoped that the data would provide a baseline for comparison and conjecture in terms of nurse-patient verbal interaction patterns. The methods used for collecting data were developed for this study specifically to maximise the 'realism' of the data and to minimise contamination by the research process.

A multidimensional approach has been taken to the subsequent analysis of these data in an attempt to produce a usable framework for further work in this area. This thesis does not have one particular theoretical or methodological stance. Its style is eclectic, borrowing from many different disciplines and perspectives such as psychology, sociology and linguistics in order to describe a small part of the complex activity called ' nursing'. Such eclectism is felt to be appropriate for the study of nursing which is seen as an applied science "unique in the qualitative and quantitative mix of the underlying disciplines of which it is composed" (Hockey 1978).

c) Outline of Thesis

The chapters of the thesis are arranged as follows:

Chapter 1: Communication in Nursing
Chapter 2: Literature Review:a) Communication in Nursing
Chapter 3: Literature Review: b) Interaction Analysis
Chapter 4: Exploratory Work
Chapter 5: Data Collection
Chapter 6: Analysis of Recorded Data
Chapter 7: Results
Chapter 8: Discussion

In Chapter 1 the role of communication in nursing is explored with emphasis upon definitions of nursing and the aims and contents of nursing education programmes related to verbal communication. Chapters 2 and 3 contain the literature review, divided into two sections. Firstly the literature relating to communication in nursing is presented, starting with broad based studies and moving to those which have examined aspects of verbal communication in great detail. Secondly, a selective review and critique is given on the use of interaction analysis as a method for analysing verbal interaction in many different fields, including nursing.

Chapter 4 contains preliminary thoughts and work in the development of the research. Here the process of selecting and developing methods for collecting accurate data on nurse-patient conversations is described, as are the initial attempts at data analysis. This is followed in Chapter 5 by a discussion of the methods used to collect a data base of nurse-patient conversations from surgical wards.

In Chapter 6 the complex process of developing methods for analysing the interaction data is described. Because the resultant chapter is long it has been divided into sections, each presenting one dimension of the multidimensional analysis process. In Chapter 7 the results of analysing the data are presented and the strands of a descriptive and analytic framework are drawn together.

In the concluding chapter, the research findings in general and the framework for describing and analysing nurse-patient verbal interaction in particular are examined. The implications of the findings and the potential of the framework for use in further research and in the teaching and testing of communication skills is discussed.

CHAPTER 1

COMMUNICATION IN NURSING

CHAPTER OUTLINE

1.1 Definitions of nursing.

1.2 Verbal communication in nursing.

1.3 The skills of verbal communication.

1.4 The place of communication skills in nurse education programmes.

a) Syllabuses and curricula

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CHAPTER 1

COMMUNICATION IN NURSING

The focus of this study is upon an important aspect of communication in nursing - namely nurse-patient conversations or verbal interactions. In this chapter an attempt is made to identify and clarify both the overall place of communication in nursing care and, more specifically, the place of verbal communication or interaction in nursing.(+) Firstly the ways in which nursing has been conceptualised and defined are explored. Secondly the curriculum contents of different nurse education programmes are analysed to provide an operational framework for the place of communication in nursing. Finally attention is given to the views and behaviour of nurses in terms of their perceptions of the role of communication in nursing care.

As a result of this it is suggested that, although in theory communication is seen as central to nursing, the relevance and importance of communication is not explicitly stated nor is the need for teaching communication skills explicitly recognised in educational programmes. There may in consequence be marked inconsistencies between the kind of nursing care which is implicitly advocated or required and the realities of nursing practice and education.

1.1 Definitions of Nursing

Many attempts have been made to provide an answer to the question "What is nursing" including those of Brown (1948), Henderson (1960) and King (1968). When analysed, these definitions tend to have common features; all describe nursing as a complex activity and all recognise that nursing is concerned with caring and nurturing,

(+) Throughout this thesis the term 'communication' is used in all cases where both non-verbal and verbal elements are being considered. The terms 'verbal communication' and verbal interaction' are used interchangeably to discuss verbal elements of communication. The term 'nurse-patient verbal interaction' is used interchangeably with that of 'nurse-patient conversation', although; it is accepted that the word conversation has a wider connotation.

and doing for others what they cannot do for themselves. This is even demonstrated in the following example taken from Florence Nightingale's 'Notes on Nursing'.

> "Surgery removes the bullet out of the limb, which is an obstruction to cure, but nature heals the wound. So it is with medicine; the function of an organ becomes obstructed; medicine, so far as we know, assists nature to remove the obstruction; but does nothing more. And what nursing has to do in either case is put the patient in the best condition for nature to act upon him." (Nightingale,1859, p74-75)

Traditionally the fulfilment of nursing goals has been achieved through the performance of nursing tasks and nursing has been a task centred activity (Chapman 1976). However, in recent years there has been a shift of emphasis away from task orientation towards more individualised patient care (Kratz 1979). This move may reflect an increasing awareness of the importance of the interpersonal aspects of caring for patients and for meeting patients' psychological and emotional needs as well as their physical needs. Thus while the purpose of nursing has remained the same for decades, the processes by which nursing goals are achieved may themselves be changing. Some definitions of nursing are given to illustrate the emphasis on the patient as an individual and on the nurse-patient relationship.

> "To assist the individual sick or well, in the performance of those activities contributing to health or its recovery (or to a peaceful death) that he would perform unaided if he had the necessary strength will or knowledge. It is likewise the function of the nurse to help the individual to gain independence as rapidly as possible." (Henderson 1977) (Reprint)

> "A unique human relationship between an individual who is sick or in need of health services and a nurse specially educated to recognise and respond to the need for help. Nursing is an educative instrument, a maturing force that aims in the direction of creative, constructive, personal and community living." (Peplau 1961)

> "To assist individuals, families and communities, to prevent or cope with the stress of illness or suffering" and
>
> "To assist individuals, families and communities in finding meaning in illness and suffering if this be necessary." (Travelbee 1971).

These definitions all differ slightly in their descriptions of nursing activities but they all imply, quite clearly, that nursing involves the ability to cope with and interact with patients on an individual basis. The importance of interpersonal skills in nursing is further stressed by the statement approved by the Council of National Representatives of the International Council of Nurses (+) which outlines eight functions of a nurse. The first four of these are as follows:

> "1) Carrying out the therapeutic programme, including personal services concerned with hygiene and comfort as they cover the range of basic human needs;
>
> 2) creating and maintaining a physical and psychological environment, conducive to health improvement convalescence, recovery or the achievement of a dignified death;
>
> 3) enlisting the interest of the patient and his family in seeking the conditions necessary to attain recovery, rehabilitation and optimal self-maintenance;
>
> 4) counselling people, sick and well, in measures promoting physical, mental and social well being."

If nurses are to fulfil many of the functions outlined in this statement they must possess more than technical nursing skills. For example, "creating a psychological environment conducive to health improvement" is a function which requires knowledge of psychological processes, knowledge of the patient and his circumstances and the existence of an appropriate relationship between nurse and patient. The importance of the nurse-patient relationship to the effectiveness of care has become increasingly well recognised in the literature as the quotations given below demonstrate.

(+) News item: International Nursing Review 20:153 (no.5) 1973

> "In its simplest form, nursing care assumes the presence of a patient and a nurse who relate to each other on an individual basis." (Phelps-Matthews 1962)
>
> "A crucial part of being a competent professional is being competent in human involvement." (Travelbee 1969)
>
> "Every time a nurse is one of an encounter, she is giving a message ... she is a 'significant other' to the patient." (Combs 1974)
>
> "Surely in order to give helpful and meaningful care the nurse needs to focus on the patient to discover his particular needs and unique personality. She needs to not only learn about the patient but to actually know him, ie how he perceives himself and others. Care is the concern of one person for another's well-being. This caring is demonstrated in nursing in the relationship between the nurse and the patient." (Wells 1975)

This last statement by Wells emphasises the fundamental place of the relationship between nurses and patients in nursing if care is to be given according to a patient's individual needs.

In recent years the nursing profession has been influenced by the phenomenon of 'TheNursing Process'. Orlando (1961) stated that the purpose of nursing is to supply the help a patient requires in order for his needs to be met. The nurse achieves her purpose by initiating a process which ascertains the patient's immediate need and helps to meet the need directly or indirectly. The fact that the philosophy of the nursing process has had an impact on nursing education and practice (G.N.C.(+)1977: Kratz 1979) has important implications for any goals or outcomes of nursing care.

Kratz (1979) describes the nursing process as "basically a problem solving approach to nursing that involves interaction with the patient" (p 3) Although there have been a variety of different approaches

(+) G.N.C. - General Nursing Council

to the concept of the nursing process (Riehl & Roy 1974: Marriner 1975 and Yura & Walsh 1978), the philosophy which underlines these approaches remains consistent. The process consists of the four intellectual steps of assessment, planning, implementation and evaluation of nursing care. These steps are worked through systematically in order to achieve an appropriate and practical nursing intervention, based on each patient's individual needs.

As has been discussed previously, giving nursing care according to the principles of the nursing process model involves the use of effective communication skills. The importance of nurse-patient interaction through the concept of the nursing process can perhaps be best illustrated by looking at each of the four steps of the process in turn.

(1) Assessment: Patients may have a wide variety of needs for nursing care - these may be physical and/or psychological. In order to accurately identify such needs it is essential to observe and talk with the patient (or if this is impossible with a relative or friend).

(2) Planning: Ideally the patient and/or his relatives can be involved in the planning of goals and objectives for nursing intervention. Decisions about how the patient is to be nursed must be communicated to the patient and to the rest of the team in the form of verbal and written information.

(3) Implementation: Carrying out any nursing intervention will involve constant interaction between nurse and patient. Such interaction may be verbal and non-verbal. Verbal interaction will be particularly important when attempting to meet patient's needs for information, support, advice, education and reassurance.

(4) Evaluation: This step involves establishing whether the nursing care given has been effective in terms of meeting the identified goals or solving identified problems. Communication through observation and verbal interaction is essential in order to determine the effects of any care or treatment given.

The relevance of effective communication skills to all steps of the nursing process can thus be seen. Orlando (1961) states that the nursing process is initiated by "ascertaining the patient's needs" and it is clearly impossible to ascertain any individual's needs in the absence of interaction and communication. Orlando also emphasises the importance of nurses talking to patients and asking the patients themselves to confirm or correct nurses' perceptions of their needs. It can be seen, therefore, that if an important aspect of nursing is to care for patients as individuals then nursing must essentially involve interpersonal activity. As such the place of communication is fundamental. Indeed, Smith (1964) when describing relevant approaches to nursing says, "the science of communication is more pertinent to nursing than the science of disease or pathology" (p 70).

1.2 Verbal Communication in Nursing

In the first section of this chapter it was argued that the concepts of communication and interaction are crucial to effective nursing care. The activities of nursing incorporate a wide range of encounters and interactions between nurses and their patients or relatives, and these interactions occur in a variety of circumstances. Whenever human beings are in contact with each other some communication will inevitably take place. Activity or inactivity, words or silence, all have some message value and can exert influence on others. Watzlawick et al (1967) state "If it is accepted that all behaviour in an interactional situation has message value, ie, is communication, it follows that no matter how one may try, one cannot not communicate". Thus whenever a nurse attends to a patient, she will ' communicate'

with the patient either non-verbally or verbally and non-verbally. However, as discussed in the previous section, verbal communication with patients is particularly important if patients are to be cared for as individuals. For example, the process of identifying and assessing patient's needs and giving information, support and reassurance all require effective verbal interaction.

The importance of the verbal component of nurse-patient communication cannot be overemphasised. For example, when patients are admitted to hospital they have to adapt to a new environment at a time when they are likely to be under stress (Elms & Leonard 1966: Franklin 1974). Bartter and Delea (1962) found that being admitted to hospital can affect the adaptive processes of a patient for several days. Pride (1968) suggests that one of the most important means that individuals use to adapt to a new situation or environment is that of verbal communication. Nurses, therefore, have a vital role in helping patients to adjust and an important means of fulfilling this role may be through effective verbal interaction. Wiens et al (1965) suggest that many functions of the professional nurse can only be carried out through appropriate verbal communication. They give examples such as teaching health practices, extending emotional support, bringing about changes in patients' behaviour and obtaining an adequate history. In addition, hospitalised patients are primarily dependent upon medical and nursing staff for advice and information and, as Faulkner (1980) has pointed out, nurses may need to take greater responsibility for this information-giving role.

Moreover, recent devlopments in nursing practice, such as attempts to put the philosophy of the nursing process into practice and increased emphasis on disease prevention and health education, may all, in turn, be increasing the importance of effective verbal communication in nursing care. For example, developing and drawing up of individual care plans is an essential part of putting the nursing process into practice and of assessing and meeting individual patient's needs

(Hunt and Marks-Maran 1980). Nursing care planning involves the taking of an admission history and subsequent assessment and evaluation of the care needed and the care given. In order to complete these activities effectively it is necessary tbat nurses possess the appropriate verbal communication skills. For example, they need to be effective at listening to what patients say, at asking questions, exploring a topic and encouraging patients to continue talking. The skills involved in such interactions are described below.

1.3 The Skills of Verbal Communication

Throughout this chapter it has been argued that communication in general and verbal communication in particular are important elements in the nurse's role and that, in order to fulfil this role, it is necessary that nurses are effective communicators. This means that all nurses need to possess an appropriate repertoire of interaction techniques or skills. Argyle(1972) has suggested that social interaction behaviour comprises many skills or sub-skills - that is, they are behaviours which can be learned, practiced and improved.

Social skills are the skills used when individuals interact at an interpersonal level. Several attempts have been made to define 'social skill' including that of Combs and Slaby (1977) who maintain that social skill is,

> "the ability to interact with others in a given social context in specific ways that are socially acceptable or valued and at the same time personally beneficial, mutually beneficial or beneficial primarily to others". (p 162)

Social skill has also been defined in terms of the specific behaviour of individuals. For example, Rinn and Markle (1979) define social skills as, "a repertoire of verbal and non-verbal behaviours," while Van Hasselt et al (1979) claim that social skills are always situation specific and can also always be learnt. They see social skills as goal-directed social behaviour which can be learned and which is under the control of the individual.

Social interaction involves both verbal and non-verbal skills. As discussed previously, the focus of the research reported in this thesis is upon the verbal aspects of interactions between nurses and patients. Several specific verbal skills have been identified by different researchers and some of those which have been shown to play a significant role in the maintenance or breakdown of conversation are discussed below.

A nurse who is verbally skilled should be able to successfully initiate, maintain, direct and terminate verbal interaction with patients. The skill of verbal reinforcement or encouragement has been found to be important in the maintenance of interaction or conversation. This includes all verbal behaviour which encourages a person to continue in a dialogue, such as "Uh huh", "yes, yes", " go on", "that's interesting", etc. It has been found that groups of psychiatric patients consistently fail to use such techniques (Trower et al 1978). The control that one individual can have over another in conversation has been demonstrated by Quay (1959) who found that use of the utterance "Uh-huh" in conversation significantly increased the frequency with which subjects talked about their early childhood memories. Greenspoon (1955) also showed that the use of "Uh-huh" as a reinforcer significantly increased the frequency of subjects' use of two responses. Thus if a nurse uses any form of verbal reinforcement which accepts, praises, encourages or supports what a patient says, this could have the effect of directing the patient's conversation onto important or relevant topics.

The technique of 'reflection' has also been found to be an important verbal skill. Reflection is the process whereby one participant in conversation mirrors back, either in the same words or paraphrased form, the essence of the other person's previous statement. Verplanck (1955) and Haase and Di Mattia (1976) stated that reflection can be used to increase the degree to which an individual will contribute to

a conversation and in particular the extent to which opinions and feelings are expressed. It can be seen, therefore, that the skilled use of such a technique by nurses would make it easier for patients to express themselves.

Questioning is one of the basic skills of social interaction and there is a wide variety of types of question, each of which is valuable for different situations. Many different ways of classifying questions have been proposed but one of the commonest distinctions is that of 'closed', 'leading' or 'open' questions. This distinction relates to the extent to which a respondent has flexibility in terms of how a question is answered. Closed questions are those which restrict the possible responses - often to monosyllabic answers such as "yes" or "no". Alternatively, respondents may be offered a forced choice such as "would you rather get up or stay in bed?". Closed questions can be very useful, especially at the beginning of an interaction or when it is necessary to collect facts very quickly. They can also help to focus the conversation but, when used habitually, they can act as an inhibiting force on the development of an interaction (Ivey and Authier 1978).

Leading questions exert an even stronger influence or control upon verbal interaction. By the way in which they are worded such questions tell the respondent how he or she is expected to answer. For example, "you would like to stay up, wouldn't you?". Although the use of such questions can stimulate conversation through provocation they have been found to produce inaccurate and often merely submissive responses (Loftus and Zanni 1975). Indeed, the use of such questions is forbidden in the cross examination of witnesses in United States' law courts. (Supreme Court Reporter, 1973). In contrast to closed or leading questions, open questions can be answered in many different ways. Such questions tend to require more than a monosyllabic response and are useful in allowing individuals to express opinions, attitudes, thoughts and feelings. Examples of open questions would include, "How are you feeling?" and "What can I do for you?"

It can be seen that the aware and skilled use of the verbal techniques discussed above could exert considerable influence upon the progress of any nurse-patient interaction. Moreover it should be possible to improve any nurse's ability to gain information from a patient, to find out how a patient feels and to establish a relationship with a patient simply by developing the appropriate skills.

Argyle (1972) claims that all socially skilled responses are organised hierarchically. Large elements such as an interview, are comprised of smaller behavioural units such as listening, attending or answering questions. Argyle also argues that as these are in fact skills , the development of all social skills can be facilitated by training an individual to acquire each of these smaller units of behaviour before integrating them to form the large elements of social response (Argyle 1964). There is considerable evidence from fields as diverse as teaching (Jensen and Young 1972), counselling (Moreland et al 1973) social work (Ellis 1980) and psychiatric patients (Trower et al 1978), which support the proposition that this behaviour can be learned and modified. In the next section of this chapter the extent to which the topic of communication in general and the techniques and skills of verbal interaction in particular appear in programmes of nurse-education is examined.

1.4 The Place of Communication Skills in Nurse Education Programmes

In the previous sections of this chapter some of the aims or goals of nursing were explored and the importance of communication and particularly verbal communication in nursing was established. In addition some of the specific skills involved in any process of verbal interaction were identified and discussed. Given the fundamental nature of the role of communication in nursing it is also important to establish how this area of practice is taught in the U.K. In this next section, therefore, an attempt is made to examine the place currently given to the teaching of communication skills in programmes of nurse education. This is achieved firstly by analysing a sample of existing

U.K. nursing curricula or syllabuses to ascertain where communication fits into the programmes. Secondly, a brief review is given of data relating to the actual content of such programmes in terms of the teaching of communication skills.

a) Syllabuses and Curricula: In recent years increasing emphasis has been placed upon psychological and behaviour elements involved in general nursing. This increasing emphasis is reflected in basic and post-basic syllabuses where subjects such as social psychological study of the individual, knowledge of human behaviour in relation to illness and social aspects of health and disease are now included (G.N.C., 1977: C.E.T.H.V.,(+) 1978). These subjects all have some bearing on the teaching of emotional and psychological care aspects of care, and further analysis of such syllabuses reveals the existence of many general statements related to this area. The Joint Board of Clinical Nursing Studies (J.B.C.N.S.) for example, is responsible for the development and organisation of many post-basic courses of nurse education. Each J.B.C.N.S. course has an outline curriculum containing several objectives. One of these objectives on each curriculum requires that "at the end of the course the nurse will be skilled in communication and in establishing good relationships with the patient and his family and with colleagues". Indeed scrutiny of two randomly picked curricula (Course 264 - J.B.C.N.S. 1976, and Course 124 - J.B.C.N.S. 1977) reveals that in addition to the general communication objective, specific requirements are included such as: "the nurse should be skilled at effective communication with patients and relatives", "should be able to teach patients and relatives," and "should have knowledge of communication techniques."

It can be seen therefore that the role of communication in nursing is recognised in certain J.B.C.N.S. curricula. This recognition is not restricted to the post-basic level of education. The General Nursing

(+) C.E.T.H.V. - Council for the Education and Training of Health Visitors.

Council is responsible for all basic nurse training schemes and produces syllabuses for education programmes at this level. The Syllabus requirements for State Registration include the following statement:

> "The concept underlying this syllabus is that of total patient care ... the various needs of patients will be closely linked together; their needs as individuals and as patients requiring nursing and specialised care and rehabilitation". (G.N.C. 1977, p 2)

Some of the items to be studied during training for Registration clearly relate to the acquisition of technical nursing skills, eg, methods of warming the bed, aseptic technique, gastric aspiration and washout. However, a large number of the items cannot be seen in terms of technical skills alone. These are areas which (again implicitly) require something more than technical skills. They require effective interpersonal and communication skills. For example, the GNC syllabus for State Registration (G.N.C. 1977) requires that nurses become proficient at tasks such as:

> Reception, identification and admission of patients.
> Reception of relatives.
> Transfer and discharge of patients.
> Observing and reporting on the general condition and behaviour of patients.
> Care of the dying and of the bereaved.
> General pre and post operative care.

These items are taken from under the heading of "General care of patients and nursing procedures". Other relevant items are given under the heading of "human behaviour in relation to illness" and these include:

> The nurse-patient relationship.
> The nurse-relative relationship.
> Relationship between emotional states and physical conditions.
> Death and bereavement.

These are all examples of aspects of nursing which, if they are to be carried out adequately, will require a nurse to possess or acquire communication skills as well as technical skills. In addition, the same syllabus also states that "the nurse has an important part to play as a health teacher" (G.N.C. 1977). This role, in common with all the

others quoted above clearly involves effective communication between nurse and patient, especially verbal communication. All such tasks or roles depend upon the existence and maintenance of some kind of dialogue between nurse and patient. For example, it is not possible to be a 'health teacher' without imparting information and giving explanations. Equally it would not be possible to give pre-operative information or to 'admit' a patient in the absence of verbal interaction. This suggests that every nurse, in order to fulfil the requirements for State Registration should possess and be able to use a wide range of verbal skills - skills which can be used to initiate, encourage and maintain an appropriate dialogue with patients. Such a repertoire would need to include questioning skills, listening, attending and observational skills, skill in answering questions, giving information and in encouraging further conversation.

b) Specific communication skills content of courses : Until recently very little has been known about the amount of time actually allocated to the teaching of communication skills on most general nurse training courses in the U.K. The teaching of this subject is commonly found in psychiatric nurse training schools (Dietrich 1978) but in general it has been assumed that, as communication is not regarded as a subject in its own right which has to be assessed or tested, teaching time on general nursing courses must be allocated to other areas. In 1976 Ashworth suggested that communication skills should be taught as a separate subject and that the skills needed in specialist areas of nursing such as ITU(+) should be identified and taught. Certainly these skills are specifically taught in many nurse training programmes in the U.S.A. (Ceriale 1976: Sparks et al 1980).

In a survey of 24 U.K. schools of nursing, Nurse (1977) attempted to establish the extent to which interpersonal or communication skills were explicitly taught to student nurses undertaking general nurse training. Fifteen of the twenty four schools responded and, of these, only two had specific sessions on communication skills when 'role-playing' was occasionally used. Communication was 'discussed' with students in the context of other areas of nursing practice and one

(+) ITU - Intensive Therapy Unit

respondent replied "In common with most schools, I am sure this contentious subject could be tackled differently ... the psychological aspects of patient care come into virtually every subject that is taught, though it is difficult to evaluate and systematise." (Nurse 1977, p 64)

Nurse concluded that "uncertainty and difficulty are experienced in knowing how to 'teach' these particular areas". In a recent article Whyte (1980) draws attention to the lack of training in such skills, particularly 'listening skills' and says that "teaching listening is a very important part of nurse training but one that requires a great deal of experiential work to find the best way of putting it across". Hussey (personal communication), in carrying out a larger survey of the teaching of communication skills in schools of nursing, confirms that in general these skills are not taught explicitly at basic nurse training level nor is any specific teaching time usually allocated to the subject.

A survey of the teaching of communication skills in post basic courses has been undertaken (J.B.C.N.S. 1980). Although an explicit communication teaching component is built into all J.B.C.N.S. curricula it was found that, in the centres surveyed, communication skills were almost never explicitly taught. Moreover, tutors on these courses were aware of this deficiency and many had requested guidance on the methods to be used in such teaching.

The evidence quoted above does suggest that in general the teaching of communication skills is not explicity included in courses for general or post basic nurse training. There are, of course, individual courses where such teaching does take place (Macilwaine 1978) but the fact remains that this is not conventional practice. Even where such teaching does occur, the time allocated is often minimal (J.B.C.N.S. 1980) and as Hargreaves (1976) suggests knowledge based on behavioural sciences is not in itself sufficient to equip practitioners with the practical skills needed to communicate effectively.

1.5 Nurses' perceptions of their communication role

As analysis of definitions of nursing has shown, communication is an essential aspect of nursing. However, while account is taken of the need for nurses to learn about psychological and emotional aspects of care the review of syllabuses and curricula in nurse education revealed that there waslittle evidence of overt communication or interpersonal skills training taking place in nurse education programmes. The evidence on the priority or weight given by nurses to this aspect of care is also somewhat conflicting. Some not only see communication as part of their role but also rate it as an important part. Hockey (1976) conducted a survey on women in nursing in Scotland and found that nurses considered patient centred care, comforting and communicating to be the most important aspects of nursing. In addition 52.6% of those surveyed said they wanted more time for listening and talking. This finding is supported by Wilson-Barnett (1977) who suggests that this demonstrates that nurses recognise their responsibility for these aspects of care but are unable to devote sufficient time to it.

Evidence cited previously of lack of actual teaching in communication skills (Nurse 1977) lends weight to the idea that failure to communicate or provide psychological care may be a function of lack of experience or training as well as or instead of lack of time. However, research by Stockwell (1972) and Faulkner (1980) suggests that nurse-patient communication does not increase when nurses have more time. This may be linked to the findings of Dodge (1969) who showed that nurses attribute less importance to information giving than patients do themselves.

Anderson (1973) asked 83 nurses of different grades to rank a list of 10 nursing tasks in order of importance. Basic nursing care was ranked 1, talking with patients was ranked 2 and answering questions was ranked 6. In a similar exercise Pepper (1977) asked nurses to

rank the same tasks and found that talking to patients was ranked 3 and answering questions was ranked 7. However, these perceptions of the relative importance of certain tasks are not always shared by doctors or patients. Anderson (1973) found that the doctors' ranking of talking with patients and answering questions was slightly lower than the nurses' rating. Dodd (1974) found that while all nurses in her study claimed that 'relationship skills' were important to nursing, her study revealed that in reality the nurses concerned did not think developing a relationship with patients was relevant to nursing. Contradictory data such as these have been uncovered in other studies. For example, Kratz (1974) found that district nurses, although claiming to espouse basic nursing care tasks, preferred tasks with a medical flavour. The nurses in her study placed more value on the care of acutely ill patients than on the rehabilitation of those who were recovering or convalescing. Further, Sledge and Rohrer(1957) found that nurses said they derived most satisfaction from contact with patientsand giving bedside care,but that they were observed to avoid giving such care, even when they had the opportunity. They say "..... there appears to be a hiatus between what the nurses say and what they do." p 76

It seems from the above studies that nurses may hold opinions about the importance of direct patient care and patient-oriented care which are not always put into practice. If this is the case then the individual psychosocial or emotional needs of patients may be neglected. This may be especially the case where patients are undemanding or inarticulate. For example, it has been found that patients are diffident about telling nurses of their anxieties (Elder 1963) and that requests for physical assistance often mask actual psychological needs (Copp 1971).

1.6 Some Inconsistencies

In the first section of this chapter it was argued that communication is central to definitions of nursing activities. In section 1.2 it was shown that verbal interaction skills are not only desirable if patients are to receive adequate nursing care-they are, in some cases, essential. The example of taking an admission history was given, where the absence of appropriate verbal communication skills on the part of the nurses would render the nursing task meaningless. In Section 1.3 the contents of different nursing syllabuses and curricula were analysed and here it was found that the role of communication in nursing is implicity recognised and advocated. This recognition takes the form of the inclusion of many nursing tasks, functions and skills which involve skilled communication. This is congruent with definitions of and assumed aims or goals of nursing where nursing is perceived as an interpersonal process directed at meeting physical and emotional needs of patients.

Inconsistencies arise, however, when course programmes are examined for evidence of explicit teaching of communication skills. In the previous section it was shown that communication skills per se are rarely taught to nurses and this finding illustrates an inconsistency which raises many important questions. Why is it that an aspect of nursing which is so fundamental is not apparently explicitly taught? In a study by Shields (1952) it was found that a large proportion of nurses believe that such skills cannot be taught and that individuals either possess them or they do not. It may, therefore, be that nurses, in general, still feel that communication cannot be taught. However, there is much evidence to suggest that, in other fields such as counselling, teaching and medicine, the teaching of communication skills does substantially improve performance in such skills (Barber and Feldman 1970: Helfer and Ealy 1976). Moreover it has been demonstrated by Schoenberg et al (1968) that many nurses would benefit from such training. In a review of studies assessing nurses' psychosocial skills they conclude that nurses are inadequate communicators due to their lack of preparation and training.

In nursing, therefore, there would appear to be a major inconsistency or paradox between what is perceived as being, and advocated as being, important and what is actually taught. This being the case, it may be that the paradox extends as far as the actual nursing care given. What is advocated as being desirable or good practice - for example, pre-operative preparation, or health education, may in fact not take place. This apparent inconsistency raises many questions, related to whether nurses actually seem to possess communication skills and whether nurses actually meet patients' emotional needs by support, reassurance, and information. The ways in which nurses learn to relate to patients, given the lack of explicit communication skills teaching, also need to be examined.

It is recognised that these questions and the issues raised are highly complex, but this whole area is one which has, to date, received relatively little research attention. The research described in this thesis was designed, therefore, to explore some of these issues and in particular to examine aspects of verbal interaction within nurse-patient communication.

The next chapter contains a review of the literature relating to nurse-patient communication which sheds some light on both the importance of communication and on the issue of how well nurses communicate with patients in reality.

CHAPTER 2

REVIEW OF LITERATURE: A) NURSE PATIENT COMMUNICATION

CHAPTER OUTLINE

2.1 Patients' needs for communication.

2.2 The importance of nurse-patient communication.

2.3 Patients' satisfaction with communication aspects of their care.

2.4 Studies of nurse-patient interaction.

a) Studies relating to interaction between nurses and psychiatric patients.

b) Studies relating to interaction between nurses and mentally handicapped patients.

c) Studies relating to interaction between nurses and geriatric patients

d) Studies relating to interaction between nurses and cancer patients.

e) Studies relating to interaction between nurses and patients in the community.

f) Studies relating to interaction between nurses and patients in Intensive Care Units, Casualty Departments, Paediatric Wards and Gynaecology Wards.

g) Studies relating to interaction between nurses and patients in general wards.

2.5 Summary

CHAPTER 2

REVIEW OF LITERATURE: A) NURSE PATIENT COMMUNICATION

This chapter presents a review of the literature concerning nurse-patient communication. In the first instance patients' needs for communication are discussed and studies which demonstrate the importance and value of communication to patients are then reviewed. This is followed by a survey of the research which has examined the extent to which patients are satisfied with the communication aspects of their care. The focus of the review then becomes somewhat narrower, with a discussion of studies which throw some light on the general pattern and picture of nurse-patient communication in the U.K. This encompasses research which has investigated nurse-patient communication at a general level in a variety of settings such as geriatric wards and the community, and the few studies which have specially examined verbal aspects of nurse-patient communication. The chapter ends with a summary of the implications of the findings of these studies and an outline of the need for further research into nurse-patient verbal interaction.

2.1 Patients' needs for communication

Communication is an important element of many needs or drives which individuals possess. Argyle (1972) presents a tentative list of motivators of interpersonal behaviour which include non-social drives, the drive for dependency and drives for affiliation, dominance, sex, aggression and self-esteem. Maslow (1970) frames human needs in a hierarchy of physiological needs and the need for safety, social contact, self-esteem and self-actualisation. Communication is clearly relevant to the final three needs but, as will be shown later in this chapter, can also have important implications for the fulfilment of physiological and safety needs. Maslow (1968) also suggests that under stress individuals will alter their perception of the importance of particular needs. Moreover when individuals become sick they may also become less able to meet these needs for themselves, thus becoming more dependent upon the help of nurses and others (Orlando 1961).

Indeed Senescu (1969) identifies the dependency response or revival of dependent patterns of behaviour as one of the most common reactions to illness. It was also suggested by Weddell (1955) that patients often regress psychologically, experiencing increased sensitivity, anxiety, and insecurity about matters which would not normally cause concern. Such responses to illness highlight the importance of communication in nursing care. If patients do become more dependent, anxious and insecure as claimed by Wilmot (1975) then their need for skilled communication will increase.

It has also been established that many patients who present with apparently physical problems also have important psychosocial needs (Balint, 1964: Kleinman 1978). In the United States, Satin (1972) found that over 85% of patients attending a casualty department had at least one psychosocial need which was not mentioned or identified. It is clearly necessary to be able to identify patients psychosocial problems or needs if good and economic care is to be given. It has, for example, been shown that individuals with unrecognised or unmet psychosocial needs are high utilisers of health care services (Tessler and Mechanic 1978) and that recovery period after surgery may be prolonged if psychological distress is not recognised (Maquire et al 1980). Revans (1964) suggested that the hospital is "an organism characterised by anxiety" and that "Anxiety is enhanced by uncertainty" (p 91) and also argues that poor communication can result in patients taking longer to recover.

Many researchers have shown that patients in hospital do suffer from high levels of anxiety or stress. Franklin (1974) attempted to relate the degree of anxiety felt by patients on admission to hospital to the amount of information they received from nursing staff. She established that patients demonstrated a high level of anxiety on admission but could not systematically relate this to how well informed they were. However, in this study anxiety levels were assessed using a 'trait' test when a 'state' test would have been more appropriate.

Hugh-Jones et al (1964) also assessed anxiety levels on admission and found that 'cold' or routine admissions were more anxious than patients who were admitted as emergencies. De Wolfe et al (1966) assessed patients admitted to a general medical ward using questionnaires and personality tests and found that the patients most likely to be under stress were those who had higher trait anxiety scores, were younger than average and who had less serious medical problems.

Admission is not the only stress-producing event for patients. Raphael (1969) and McGhee (1961) found that amongst other things, patients worried about noise, lack of privacy and the use of bedpans. In a study undertaken in the United States, Volicer and Bohannon (1973) asked patients to rank items according to the amount of anxiety they caused. Inadequate explanation of treatment and diagnosis was ranked highly, as was the unconcerned attitude of staff. These findings were confirmed in a later more detailed study (Volicer and Bohannon 1975) in which 261 medical and surgical patients were asked to rank order 49 events related to being in hospital from most stressful to least stressful. Events ranked consistently as 'most stressful' included "not being told what your diagnosis is", "not knowing for sure what illness you have", "not knowing the results or reasons for your treatments", and "not having your questions answered by the staff". These findings add weight to the suggestion that individuals change when they are ill and become more dependent. Certainly the stress events identified by these authors appear to be related to uncertainty and insecurity and a need for guidance.

Carnevali (1966) studied the specific anxieties of surgical patients and found that pain was the most frequently mentioned fear with "not knowing what to expect" also being stated as a common worry. Weiler (1968) found that surgical patients reported a need for pre-operative instruction and adequate explanations and Wilson-Barnett (1977) found that 40% of a sample of general medical ward patients stated a need for more information. Other studies have shown that patients need information related to how they are expected to behave during and

after hospitalisation (Dumas and Anderson 1964: Duff and Hollingshead 1968). Gould (1973) examined the emotional effects of surgical illness and stressed the need that patients have for information, explanation and general communication with staff. Dodge (1972) found that patients ranked getting information about their condition as a more important factor in their case.

Nurses clearly have an important role to play in meeting these needs. Anderson (1980) asked a sample of 40 patients who were visiting out-patient clinics for physical health problems the following question: "How could a nurse be most helpful to you today?" Responses were categorised and it was found that 16 patients felt their greatest need to be that of communication by either wanting the nurse to talk to them, explain things regarding their care, be kind and pleasant to them or to give advice. The fact that patients recognise such needs and also express anxiety about these aspects of their care does reinforce the importance of effective communication. Moreover, many studies have been undertaken which demonstrate the beneficial effect of nurse-patient communication and these are reviewed in the next section.

2.2 The importance of nurse-patient communication

It has long been recognised that communication in patient care is very important and many reports and articles have been written which advocate 'better or improved communication' between staff and patients (C.H.S.C.(+) 1963: C.N.O.(++) 1977: Fletcher 1973). There is also a growing body of research evidence which demonstrates the identifiable beneficial effects that appropriate nurse-patient communication can have on the well-being of patients.

One group of studies has examined the extent to which nursing interaction will have an effect on patients' pain. Moss and Meyer (1966) designed an experiment in which there were two groups of patients. One group received the usual hospital care, in the form of analgesia for pain. In the other group nurses talked with patients about their discomfort and explored alternative methods of relieving pain, such as a change of

(+) C.H.S.C. -Central Health Services Committee
(++) C.N.O. - Chief Nursing Officer (D.H.S.S.)

position. This interaction was found to be as effective as giving analgesics. Other studies also consistently show that when nurses just spend time talking sympathetically to patients, then the patients' perceptions of their own well-being increase (Tarasuk et al, 1965: McBride 1967).

Other researchers have examined the effect of a more specific intervention in the form of information giving on aspects of patients' well being. These studies follow a similar experimental design involving a large group of patients who have a similar medical treatment. From this main group, patients are then randomly allocated to either the experimental group or the control group. The patients in the experimental group receive additional information and interaction from the researcher while patients allocated to the control group receive routine treatment but receive no additional information, although they may get additional attention from the researcher in terms of interaction time. All patients in these studies are then compared in terms of physiological or psychological measures. Many of these studies have concentrated on the influence of staff-patient interaction upon surgical patients. In the U.S.A., Egbert et al (1964) found that anaesthetists giving patients pre-operative instructions and encouragement significantly reduce post-operative pain. In a series of research studies Johnson (1965/6 and 1973) has analysed the effect of purposeful nurse-patient interaction, designed to enable patients to gain accurate expectations of discomfort, on post-operative condition and behaviour. She has also analysed the contribution of emotional response processes in adaptation to surgery (Johnson 1971). These studies have demonstrated that giving patients realistic expectations of their post-operative state can significantly reduce the levels of anxiety and stress experienced. Johnson et al (1975) have also examined the effect of giving children a more accurate picture of what is going to happen to them during plaster cast removal, and have shown that children with realistic expectations have less pain and are less distressed during the procedure.

Similar studies have also been carried out in the U.K. For example, Hayward (1975) found that patients in his experimental group given specific pre-operative information required significantly fewer analgesic drugs than pa tients in the control group. This finding is substantiated by Boore (1978) who showed that giving surgical patients pre-operative information results in a reduction in post-operative 'stress' as determined by physiological measures. In Boore's study the dependent variables were excretion of 17-hydroxycortico-steroids, sodium and potassium in urine, body temperatures and post operative complications,in addition to the amount of pain experienced and analgesics administered. It has also been found that explanation, support and information can significantly reduce the incidence of post-operative vomiting (Dumas and Leonard 1963).

A few researchers have looked at the effect that nursing intervention can have on newly admitted patients (Elms 1964; Anderson and Leonard 1964, Elms and Leonard 1966) and these studies have demonstrated that adequate information and explanation can reduce patients' anxiety at the time of admission. Other studies have examined the effect of giving carefully prepared explanations to patients undergoing investigations such as gastroscopy (Johnson et al 1973) and barium meal or barium enema (Wilson-Barnett 1977). In the study by Johnson it was found that patients who did not receive the explanation required significantly more sedation than the groups of patients who did. Moreover, the group which received realistic information related to the sensations they would experienced,also had significantly lower tension scores than both the control group and the group who received factual information only. Wilson-Barnett found that patients given explanation before barium enema reported significantly less anxiety than patients who had not received the explanation. However, no significant differences were found amongst patients undergoing barium meal investigations, in terms of the effect of explanation on anxiety levels.

All the studies described above have important implication in terms of the relevance of some aspects of communication to effective nursing care. Overall they demonstrate the value of increased interaction and of giving information and explanation to patients undergoing stressful operations, procedures or events in terms of reducing pain, anxiety, vomiting and other side effects. Although such studies have important implications for nursing practice in terms of the nurse's contribution to the task of informing or reassuring patients about treatment, they should also be examined critically on a number of counts. Firstly, these studies show what happens when the researcher (admittedly, often a nurse) gives patients additional time or information. Thus the research quoted only demonstrates the effectiveness of 'outside' or additional individuals as communicators. To date little research has been undertaken to evaluate the effect on patients of the actual ward staff giving additional information. One study currently in progress (Davis 1981) is examining this problem but few definitive findings are yet available. However, Davis discusses the problems encountered during this research and describes the need to teach the nurses concerned 'social skills' in order to enable them to inform and explain to patients in an appropriate way.

The second question which needs to be asked of these experimental research studies concerns the area of individual patient needs. There is an implicit assumption underlying these experimental studies that all patients benefit from additional information and indeed that they all benefit from the same information. The findings of Wilson-Barnett (1977) cast some doubt on this assumption. She found that the effect of giving information varied according to the investigation being undergone and that there were large individual variations in response to receiving information. Andrew (1967) also found that surgical patients' personality traits influenced the effect that pre-operative information had on their post-operative recovery period. Therefore, although as a generalisation patients appear to benefit from addition information, the response of individual patients can vary enormously. There is

clearly a need for further studies to explore differences in patients' needs for information and support - differences which may be related to variables such as the patient's age, sex, diagnosis, education, culture and so on. Another vital question related to these experimental studies is concerned with the differences between nurses in terms of their skills as informants or communicators in general. This is a problem which has yet to be faced in field studies in which the effect of giving information to patients is investigated.

The final question to be examined in relation to the experimental studies of information giving concerns the nature of the communication. The type of information in terms of its realism has been shown by Johnson (1973) to have a significant effect on patients' experience where the more accurate the description of sensations to be felt, the greater the decrease in anxiety felt by patients. However, Ley and Spelman (1967) have demonstrated that most patients recall only a fraction of the information they are given even after a very short time has elapsed. This suggests that the apparent benefit gained from being given information is not a function of simple cause and effect relationships. Indeed, one aspect of the potential complexity of nurse-patient verbal interaction was highlighted by the findings of an experiment carried out by Meyers (1964). Herethe effects of three different styles of communication between nurses and patients were examined when groups of patients were subjected to an unfamiliar nursing procedure. Each of the three groups was subjected to either "no communication" where they were told absolutely nothing about what would happen to them or "irrelevant communication" which was designed to distract or divert the patients' attention from the procedure by talking about the weather. The third group received structured information explaining the procedure in detail. As predicted the patients receiving specific information had a higher recall rate and were assessed as being less anxious, than patients in the other two groups. However, in general the irrelevant communication condition was found to be more stressful than receiving no communication whatever.

These findings have important implications in terms of questioning the value of the kind of everyday small talk and reassuring tactics often used by nurses (Faulkner 1980). Although Meyers' (1964) experiment can be criticised both in relation to the very small sample involved and the measures used to determine patients recall and emotional state, it deserves replication. Certainly it highlights the need for researchers to examine a large and frequently overlooked area of nursing 'behaviour' - namely the ways in which nurses attempt to reassure patients. As Marshall (1979) says - "Reassurance is an essential part of patient care but it is often taken for granted and an understanding of what it actually involves is rare".

In summary, experimental studies of nurse-patient communication demonstrate the effectiveness of interacting with and giving information to patients. A large number of issues and questions are raised by these studies some of which have been briefly explored above. These highlight the complexity of this aspect of 'caring' and have important implications for increasing an understanding of many areas of nurse-patient verbal communication. Such increased understanding is essential for although, as has been discussed in this chapter, patients have a need for communication, and increased interaction and/or information can be shown to be beneficial to patients, there is considerable evidence which suggests that communication is an area of care where patients' needs are not being met. The remaining sections of this chapter examine this evidence in detail, starting with a review of studies which demonstrate the degree to which patients themselves are satisfied with the communication aspects of the care they receive.

2.3 Patients' satisfaction with communication aspects of their care

Over the past two decades many researchers have investigated, either directly or indirectly, the extent to which patients are satisfied with the care they receive. In general it has been shown that patients are not satisfied with communication and the amount of information they receive in particular. Indeed a common thread between many of the studies is the finding that patients are frequently more critical

about poor communication between staff and patients than about any other aspect of their experience in hospital. For example, McGhee (1961) used an unstructured questionnaire to interview 490 patients within two weeks of their discharge from surgical and medical wards of a Scottish hospital. McGhee found that each patient referred to aspects of communication and of these 65% were actually dissatisfied with this part of their care. In this study communication was the single largest source of dissatisfaction with, by comparison, approximately 40% of the sample complaining about 'noise' and approximately 30% being dissatisfied with aspects of their medical care.

In 1964 Cartwright used a structured interview schedule to interview 739 people who had been in hospital during the previous six months. The schedule covered many aspects of the patients' experiences during and after hospitalisation. The outstanding finding of this survey was that 29% of all patients in the sample expressed serious dissatisfaction with communication, while 61% mentioned some degree of dissatisfaction with communication. Patients were also asked how much information their ward sister had given them about their illness, treatment or progress. 16% said 'a lot', 40% said 'a little' and 44% said 'none'. The remainder of the nursing staff were found to have given very little information to the patients.

Hugh Jones et al (1964) explored the anxieties and dissatisfaction of a sample of 245 medical ward patients. They found that even though the staff involved had made an effort to explain diagnosis and treatment, 39% were dissatisfied with the amount of information they received. It is frequently suggested that patients' recall is poor (Ley and Spelman 1967; Bradshaw et al 1975) and that dissatisfaction is due to this factor. However, Hugh-Jones et al found that recall of information actually given to patients was accurate in 79% of the patients. This finding of dissatisfaction with amount of information given was replicated by Raphael (1969). In a review of studies of patient satisfaction Ley (1972) concludes that many patients are not satisfied with the amount and/or type of information given to them

in hospital. Skeet (1970) investigated the needs of patients recently discharged from hospital and also found that many patients, particularly the elderly, were discharged having been given inadequate information, preparation, instruction or advice. Eardley et al (1975) found that patients who were expected to cope with chronic disability were given inadequate explanation, education and advice. In a study of surgical patients, Reynolds (1978) asked 100 patients specifically about the information they had received about their illness and treatment, and found that over 50% were dissatisfied with the information given.

The findings of many of the research studies discussed above have, over the years, been noted by various government bodies or committees, Recommendations for improvement in staff patient communication (+) have been made in a variety of documents (C.H.S.C. 1963, D.H.S.S. 1976, C.N.O. 1977) but the fact remains that patients' complaints about poor communication continue to rise. For example, in 1977 the N.H.S. Ombudsman reported:-

> "During the year I issued 120 reports of investigations into individual complaints..... There is one underlying consideration which seems to me to be present in most, if not all cases. This is the problem of communication....."
> (++) (H.M.S.O., 1977)

Moreover, and most importantly, an increasing proportion of these complaints are directed towards nursing staff (D.H.S.S. 1973; H.M.S.O. 1979). These findings raise an important question. Given that it seems clear that patients have important communication needs and given also that it seems clear that effective communication can have beneficial effects on patients' well being, why are patients dissatisfied with this aspect of their care?

It has been suggested by Royle (1973) that patients are ill-informed because they ask very few questions. Even if this is the case it is perhaps inappropriate to leave the responsibility for communication with the patient for, as McGhee (1961) pointed out, patients see many of the medical and nursing staff as authority figures and, therefore,

(+) D.H.S.S. - Department of Health and Social Security
(++) H.M.S.O. - Her Majesty's Stationery Office

as unapproachable people. It has also been suggested by several researchers including Menzies (1960), Jourard (1964), McIntosh (1975) and Faulkner (1980) that nursing staff distance themselves from patients, thus making their patients'efforts to communicate or be communicated with, less successful.

There are of course many other possible alternative explanations for the apparent failure to meet patients' communication needs. For example, is it that nurses and patients do communicate but that patients forget what happened? Or do patients simply not ask questions or discourage nurses from giving information? Or is it that nurses distance themselves from patients thus making it difficult or impossible for effective communication to take place?

As has been discussed previously, an essential pre-requisite of nurse-patient communication is nurse-patient contact. In order to gain insight into the problem and some answers to the questions posed above it is necessary to examine what actually takes place when nurses and patients are in contact with each other. In particular it may prove illuminating to analyse the verbal communication elements of nurse-patient interaction. In the next section of this chapter, therefore, some studies are reviewed which have explored the amount and type of nurse-patient interaction which occurs in a variety of settings.

2.4 Studies of nurse-patient interaction

There is a sense in which any study which examines nursing activities will also, by definition, involve an examination of nurse-patient interaction. For example, several researchers have studied nursing workload or dependency (Nuffield Provincial Hospital Trust, Goddard 1953; S.H.H.D. 1967 (+); Rhys Hearn and Potts 1978) by analysing nurses' work in order to establish methods of allocating staff and resources. All these studies examine the various activities carried out by nurses and these activities have been classified in a variety of ways. In the Nuffield Provincial Hospital Trust (1953) study for example, the nursing observed was described as 'basic' or 'technical'. It can

(+) S.H.H.D. - Scottish Home and Health Department

be seen, however, that this type of analysis can only demonstrate the amount of time a nurse may spend in contact with patients - it says nothing about the content or quality of the communication which may take place within the interaction.

The emphasis in this section of the literature review is, therefore, upon studies undertaken in a variety of settings which shed some light upon the detail of nurse-patient interaction. In particular any studies which have focussed upon elements of nurse-patient verbal interaction are explored. The review begins with a description of research undertaken in the areas of psychiatric and mental handicapped nursing. This is an area which has received more attention than any other in terms of detailed analysis of nurse-patient interaction. Other fields of nursing where some detailed research into nurse-patient interaction has been carried out are examined in turn. The review ends with an exploration of studies undertaken in general wards - an area which has received surprisingly little detailed attention to date. The review has been written to give a broad review of the U.K. work in the analysis of nurse-patient interaction. It was found that many studies were of tangential interest, failing to analyse in sufficient detail. The few highly relevant studies are examined in greater detail. An attempt was made in the review to draw out findings of specific interest and to emphasise general principles of method used in the studies.

The literature review is confined, wherever possible, to research undertaken in the U.K. although a few studies from the United States have been included where researchers have used a research method of interest or have produced particularly relevant findings. The decision to limit the study review to U.K. material was made deliberately in view of the focus on verbal interaction. It was felt that cultural and contextual influences on conversation or verbal interaction are particularly strong and would make comparisons inappropriate.

a) Studies relating to interaction between nurses and psychiatric patients:

There has been a progressive shift in emphasis over the past few decades from a custodial role for psychiatric nurses towards a 'therapeutic' role. The importance of nurse-patient contact and skilled inter-personal relationships to effective psychiatric nursing practice is well recognised (W.H.O.(+)1963; R.C.N.(++) 1970). However, although several researchers have examined aspects of psychiatric nursing, few of these studies explore actual nurse-patient interaction in detail. Some, including Goddard (1955) and Oppenheim (1955) examined how psychiatric nurses spent their working day. Their analysis of nurses' activities show that relatively little time was spent in one-to-one contact or in conversation with patients. Oppenheim demonstrated that talking with patients took up only 7-10% of the nurses' time, but his results, while drawing attention to the small amount of time spent in talking, do not include any data on the content of the interactions. However, his general findings are reinforced by the more subjective findings of a study undertaken by John (1961) who concluded that psychiatric patients received inadequate psychological and physical care, and also by the records kept by Caudill (1958) of his own experience of being a patient in a psychiatric hospital.

Towell (1975) examined the role of nurses in a psychiatric hospital by spending three years as participant observer. His detailed analysis of nurses' activities on three wards - the admission ward, geriatric ward and 'therapeutic community' ward - gives some clue to the amount and type of nurse patient interaction which occurred. On both the admission and geriatric wards, nurses spent very little time in verbal interaction with patients. This contrasts with the therapeutic community ward where most of the nurses' time was spent in one-to-one contact with patients. However, it is important to recognise that the verbal interactions per se, were neither systematically recorded nor analysed.

(+) W.H.O. - World Health Organisation

(++) R.C.N. - Royal College of Nursing

A study which has attempted to investigate systematically nurse-patient contacts on psychiatric wards is that of Altschul (1968,1972). The focus of this study was upon the connection between patterns of nurse-patient interactions and the development of nurse-patient relationships. She presents a detailed analysis of the frequency and duration of nurse-patient interactions from 4 psychiatric wards. A total of 251 interactions lasting 5 or more minutes were recorded and details related to the content of conversation were collected from 244 of these. Sixty-nine percent of interactions were initiated by the nurses (31% by patients). It was found that many factors were associated with the pattern of one-to-one contacts that nurses had with patients. Female patients had higher interactions rates and higher mean interaction times than males. Patients suffering from organic mental disorders had a high percentage of interactions and a higher percentage of interaction times than all other patients, while depressed and neurotic patients had a much lower number of interactions and a shorter interaction time. In general younger patients had more frequent interactions than older patients and the interaction rate was high at the beginning of a patient's stay in hospital. Nurses spent, on average, 8.9% of their observed time in one-to-one interactions with patients and student nurses interacted more frequently and for longer periods of time than trained nurses.

Each nurse was also asked for a description or 'account' of all observed interactions with patients. These accounts were coded on a 1-4 scale according to the amount of information and detail given. The majority of accounts were given the code of 1, ie they contained the minimum of information. Twenty five per cent of the interactions included content concerned with patients' psychological problems, 42.6% with social conversation and 31.1% were concerned with physical care. Altschul's study provides a valuable insight into nurse-patient interactions and relationships on the psychiatric ward studied. She draws attention to the fact that while a few patients appear to monopolise interaction time, many others were never seen to interact at all with nursing staff during the observation period. It is of course possible that these patients did interact with nurses at times when no observation was occurring but as Altschul (1972) says

"the absence of knowlege of these patients displayed by nurses, suggests that a considerable proportion of patients were unobserved by nurses", (p 194). This study makes an important contribution to an understanding of nurse-patient verbal interaction although the methods which were necessary inevitably imposed limitations on the amount of detailed data it was possible to generate. For example, for practical reasons, Altschul restricted the recording, reporting and analysing to those interactions which lasted for more than 5 minutes. Information is thus only available on one sort of nurse-patient interaction and, as these may not be 'typical', it is not possible to say what the overall pattern and structure of nurse-patient interaction was on the wards studied. Secondly, data about the actual content and process of conversations were gathered from the nurses' own reports or accounts of each conversation. While this may have been an effective method of generating the information required in this particular study, it also has limitations, which are recognised and described by Altschul. For example, nurses' reports of their conversations may not do justice to the actual conversation, neither did the method selected allow monitoring or comparisons of the precise content or process of the interactions.

An attempt to describe the overall pattern and structure of verbal interactions between nurses and psychiatric patients was made by Cormack (1976). He undertook a study of the role and work of a sample of 14 charge nurses on psychiatric wards of four different Scottish hospitals. While observing and investigating all aspects of the nurses' work the researcher was particularly interested in nurse-patient interaction and nurses' therapeutic role and recorded all instances of one-to-one interactions which last more than 15 seconds. It was found that an average of 13% of the total observed time was spent in nurse-patient interaction. The mean duration of each interaction was 2.3 mins with 86% of all nurse patient interactions lasting less than 4 minutes. This finding is important for it does lend support to the suggestion made previously that the interactions analysed in Altschul's (1972) study may not be 'typical' of nurse-patient interactions on psychiatric wards, at least in terms of their duration.

However, Cormack confirmed Altschul's findings that there were very large differences in the amount of interaction occurring with certain patients or groups of patients. A large proportion of interaction time (between 61% and 89%) was concentrated on one third of the patients while some other patients were never observed to interact with nurses. He developed profiles of high and low interactors in an attempt to explain why some patients obtained more 'nurse time' than others. Cormack suggests that it is the 'problem' patients, who by demanding nurse management, succeed in gaining a disproportionate amount of the available time. He found, like Altschul, that certain groups of patients such as the depressed or neurotic were involved in fewer interactions than other patients. He concludes that the role of the nurses observed in his study could not be described as 'therapeutic'. This view is supported by Reid (1980) who undertook a systematic activity sample of nursing care received by patients on 4 psychiatric wards. One category of care was labelled 'nurse-patient interaction' and included all social interaction or chatting, counselling and advice. Reid found that on average 9.4% of the nursing care observed was in this category, with the vast majority of nursing interaction centring around traditional task oriented activities, rather than therapeutic or social discourse. More frequent interactions took place between patients and the less experienced nurses (assistants, students and enrolled nurses) and it was the patients who also tended to initiate this type of interaction.

The research outlined above has generated a great deal of descriptive data about the pattern of nurse-patient interactions on psychiatric wards. Although Altschul's study provides some information about the content of these interactions, there is little information to date which relates to the detailed content or process of nurse-patient interactions. Therefore, although it seems that some patients or categories of patients can be recognised and labelled as high or low interactors, we have no way of knowing what mechanisms may influence the patterns of interactions.

One recent study (Macilwaine 1980) has focussed on a particular group of patients in psychiatric wards;that is, those who are diagnosed as 'neurotic'. Macilwaine's study was undertaken in psychiatric wards of a general hospital and was divided into three stages. The first two involved establishing nurses' and patients' perceptions of psychiatric nursing and in particular the assessment of nurses' attitudes towards the nursing of neurotic patients. Nurses were found to perceive themselves as highly relevant to patients' treatment and they saw themselves as giving emotional support to patients. While patients agreed that nurses provided some emotional support, they were seen mostly in administrative roles and as quite irrelevant to the patients' treatment.

The third part of the study comprised the direct observation of 24 female neurotic patients, and each patient in the study wore a radiomicrophone for 12 hours, and their interactions with nurses were recorded. Analysis of the data from this part of the study confirmed the nurses' primary administrative function. Nurse-patient interactions were categorised in a number of ways including duration. Interactions were either brief (less than 30 second) intermediate, (30 seconds to 5 minutes) or long (over 5 minutes). The majority fell into the brief or intermediate categories. Nurses were found to spend the greatest amount of time on basic nursing tasks and administration, information giving and co-ordination. Out of 200 interactions, only 5 were found to include evidence of the nurse giving emotional support and 2 where the nurse was attempting to increase the patient's insight. Many interactions were found to be banal and stereotyped.

Although presenting an interesting methodological approach Macilwaine's findings should not perhaps be generalised. Many practical problems are described with the recording apparatus and the interactions analysed are those which had been sufficiently well recorded. This in itself represents a large bias in the data and this is further complicated by the fact that aspects of the analysis process appear confused. Little specific information is given related to how the rating scales were developed. In addition the mechanics of coding or rating verbal interactions and the issues of validity and reliability are only mentioned superficially.

The small sample of patients used in the observational part of the study also means that the findings must be interpreted cautiously.

The U.K. studies of psychiatric nursing reviewed above have important methodological implications for the research described in this thesis. Although dealing with a very different patient group, the methods used to observe and analyse nurse-patient interaction behaviour highlight many of the problems which can be anticipated when designing any study of nurse-patient interaction in general surgical wards.

b) Studies relating to interaction between nurses and mentally handicapped patients:

A few researchers have been interested in the amount and type of contact that mentally subnormal patients have with the nurses who care for them. In some cases this has resulted in studies which include an analysis of the verbal interaction between nurses and such patients. Paton and Stirling (1974) examined the frequency and type of verbal interactions which took place in a Scottish mental subnormality hospital. Observers noted all nurse-patient interaction which occurred on a ward for ten out of every 15 minutes over periods of 2 hours. Interactions were coded at the time of occurrence according to a 5 point categorisation scheme. Nurses' verbal interactions were coded as either 'comments', 'instructions', 'questions', or 'conversations'. Patient initiated conversations were also coded, as were nurse and patient responses. It was found that 43% of all nurse interaction was categorised as 'comment' with only 9% being categorised as initiation of 'conversation'. Perhaps not surprisingly the few nurse initiated 'conversations' which were recorded elicited the most substantial verbal response from patients (71.6% responded) whilst 'comment' elicited a 23% response from patients and 'instructions' only a 6% response. Paton and Stirling conclude that nurses should consciously 'converse' with subnormal patients rather than talk at them.

Moores and Grant (1976) examined the nature and incidence of staff patient interactions in hospitals for the mentally handicapped. They designed a schedule for coding and categorising the interactions which took place between nurses and two matched groups of 30 patients from two different hospitals. Up to four patients were observed at any one time and interactions were coded and categorised as they occurred. The complete coding schedule contained 55 categories of nursing activity or behaviour but only 6 of these relate to nurses' verbal interactions. These are 'commands', 'instructs', 'converses', 'encourages', 'enquires' and 'discourages'. The frequency of all nurse-patient interactions was calculated and it was found that over 50% of these lasted for less than 10 seconds. Approximately 15% of all verbal interactions were labelled as "commands" and 25% as 'enquires' and 22% as 'converses'. Very little "teaching" was observed although there were significant inter-hospital differences. It was observed that, as shown by Cormack (1976) and Altschul (1972) in their studies of nurse-patient interaction in psychiatric wards, disproportionately few patients account for a large percentage of all interactions. Moores and Grant found that in one hospital, 7 of the 30 patients received almost 50% of all interactions and in the other 9 patients out of 30 had most interactions with the nurses.

These authors undertook a further analysis of their data (Moores and Grant 1977) to try to identify some characteristics of these patients who received the majority of nursing attention. They suggest that patients exhibiting maladaptive behaviour were the ones receiving the greatest number of interactions. However, they also noted that the more independent and more well adapted patients received nursing interaction which was of a higher "quality" in that it was more likely to be verbal and to be positive or encouraging.

The studies outlined above provide interesting data about the limitations of nurse patient interaction on the wards studied. However, the research methods used in each case involved immediate categorisation of behaviours which may be difficult to discriminate between, as for example, 'commands', or 'instructs', or 'encourages'. In

addition the Moores and Stirling observation schedule did not include the coding of patients' behaviour either in terms of initiation or response. This would seem to be a serious omission for, whatever the context, a record of the patients' part in the interaction is an essential element.

C) Studies relating to interaction between nurses and geriatric patients:

Many studies have been undertaken which examine aspects of the work of geriatric nurses (Norton et al 1962,; Goddard 1953 and 1963; Adams and McIlwraith 1963; S.H.H.D. 1967; Rhys-Hearn and Potts 1978). Wells (1975) reviewed these studies and points out that,as the way in which nursing activities have been classified in these studies varies considerably,it is difficult to establish just how comparable these data are. However, as a general rule all these studies show that nurses on geriatric wards spend most of their time engaged in basic nursing care activities such as dressing, washing (estimates vary from 30% to 50%) and pressure area care.

While giving basic nursing care clearly involves nurse-patient interaction few researchers have specifically analysed the content of such interactions between nurses and geriatric patients. Goddard (1953) demonstrated that nurses spent very little time (about 4% of the total time) in personal conversation with patients. The nurses in his study claimed that a good nurse would find time for talking while undertaking routine nursing activities. This is confirmed by Stockwell's (1972) findings that nurses felt they had enough conversations with patients while carrying out nursing tasks. Adams and McIlwraith (1963) estimated that nurses spent only 1% of their time in specific conversation with patients. Norton et al (1962) observed 18 elderly patients for 24 hours each and found that only four of these patients had any 'social' conversation with a nurse. Moreover, the total time taken up by these conversations only amounted to 4 minutes.

In a study which examined many areas of geriatric care, Wells (1975) also identified and measured a nursing activity labelled 'personal contact'- a label which included any instance where nurses and

patients were interacting socially in the absence of a specific nursing activity. Wells found that approximately 4% of nurses' time was spent in personal contact, but that there were large individual and inter-ward variations. Wells continued her research by attempting to collect data on verbal communication between nurses and geriatric patients on one ward. This aspect of her work is, therefore, highly relevant to the present study. The method used by Wells to collect these data involved the use of a tape recorder - carried by the researcher/observer - timing by stopwatch and the completion of a recording sheet during each verbal interaction which occurred. Tape recordings were made for five minutes out of each 20 minute observation period. These recordings were transcribed and subsequently analysed. Wells found that over 50% of nurse-patient verbal exchanges lasted for less than 25 seconds and these short exchanges were excluded from the study. She also found that quality of tape recordings was poor and analysis was, therefore, limited to recordings of adequate quality. On average nurses had four verbal exchanges with patients per hour. The average duration of these exchanges was 1 minutes 28 seconds and sustained communication (more than 25 seconds) occupied 13.9% of the time observed. Nurses initiated 72.5% of verbal interactions and it was found that almost all such interactions occurred at the bedside and were clearly related to the current activity of the nurse. Seventy five per cent of all verbal exchanges occurred while nurses were giving physical care. Content of the interaction was classified as either 'procedural', 'mixed' or 'personal' and it was found that 54.1% of interactions were about procedural matters, 25% were mixed and 20.8% were personal in nature. However, Wells concludes that verbal communication on the geriatric ward studied was infrequent and of limited quality. Although 20% of exchanges were personal, ie directly concerned with the patient, such exchanges were found to be superficial and stereotyped.

These findings, although based on a small sample, lend support to some sociological analyses of geriatric care. In a study designed to describe attitudes of nurses to the care of the elderly, Baker (1978) drew attention to the 'routine geriatric' style of nursing which pervaded the wards investigated. Where this style of nursing was practised nurses

viewed geriatric patients as being less than fully responsible adults and this was reflected in, amongst other things, the type of verbal interaction which occurred between nurses and patients. Fairhurst (1978) undertook a participant observation study of rehabilitation in a geriatric hospital and also suggests that verbal interaction with patients is routinised and ritualised. She terms this 'ceremonial talk' and 'superlative talk' and includes all task-oriented interactions such as "It's time to get up", "jolly good", and "you are doing well". She claims that this forms a substantial part of all verbal interactions on geriatric wards.

The work undertaken by Wells (1975) described previously has particular implications for the present study. The methods used enabled a closer examination of the actual content of verbal interaction than previous research has allowed. In spite of the small scale of the investigation and the methodological problems encountered, she demonstrated that it is feasible to collect recorded data on nurse-patient verbal interactions which can then be subjected to post hoc analysis.

d) Studies relating to interaction between nurses and cancer patients:

Much has been written about the importance and difficulty of problems encountered when communicating with patients who have cancer (Klagsbrun 1971; Weisman 1972; Hinton 1973) and Brewin (1977) refers to communication with cancer patients as "walking into a minefield of misunderstandings". In spite of this awareness of the problems, relatively little is known about the precise nature of the communication which occurs or fails to occur.

A few broad based studies have been undertaken which highlight certain aspects of the problems. For example Quint (1965a) describes how she observed nurses and doctors consistently avoiding involved conversation with patients who had undergone mastectomy about their condition or treatment:

> "much of the time the nurses were able to avoid conversational difficulties with patients by using tactics which directed the discussion into safe channels. Thus the nurse could focus attention on the procedure being done, or could teach the patient about such matters as arm exercises, or could make small talk, but she seldom encouraged open talk about the illness itself or about cancer" (p 123).

It has also been suggested that nurses avoid conversation with patients about symptoms which are related to the diagnosis of cancer (Quint 1965 b). Glaser and Strauss (1965) also observed nurses who were reticent about giving patients information about tests or investigations relating to cancer. They suggest that as the doctors in their study often failed to give adequate information to patients, an added burden fell upon the nurses from alternative sources. However, it has further been suggested (Sudnow 1967) that nurses in this situation use the strategy of referring the patient back to the doctor.

McIntosh (1975) analysed processes of communication, information seeking and control associated with patients with cancer. He used participant observation and interview as his research methods and watched and 'eavesdropped' interactions between doctors and patients and nurses and patients. The nurses in his study felt that telling the patients and nurses about diagnosis was the doctors' sole responsibility. Bond (1978) found that this belief was not held by nurses for patients who did not have cancer but she observed that they avoided becoming involved in all but the most superficial interactions. Bond suggests that this is due to nurses' fear of being asked for any kind of diagnosis or prognosis. In a study involving the observation of patients with breast cancer Maguire (1978) found that patients in distress did not receive a favourable response from nurses. Instead nurses tended to ignore signs of distress, spoke in clichés ('it will be all right") or gave drugs but did not sit with these patients, initiate conversations, listen or allow them to talk about their worries.

These findings are confirmed in an observation study by Bond (1978) in which nurses' management of their interactions and communications with cancer patients was explored. Data were collected systematically from a single radiotherapy department using direct observation of nurses' conversation and their own reports of interactions with patients. All patients on the ward were suffering from cancer and were in varying stages of the disease. Bond found that female patients received twice as many interactions as males and the conversations were on average longer. Patients requiring physical nursing care who were bedfast received the great majority of interactions. Less than 5% of all interactions lasted for longer than 3 minutes and it was found that most conversations consisted of light social chat or were related to the activities in which the nurses were engaged with the patients. There was little evidence of conversation related to the diagnosis or treatment of cancer or to patients' social or psychological problems. Patients rarely asked the nurses direct questions but instead employed hints or indirect questions. Bond observed nurses using a variety of evasive tactics such as "jollying along", ignoring the questions or referring patients' queries to more senior nurses or to the doctors.

Maguire et al (1980a) report a study conducted on a surgical ward in which a researcher visited 20 mastectomy patients several times a day and systematically inquired who had been to see them and what they had talked about. It was found that only one in 20 of the interactions reported concerned the womens' emotional well-being or psychological reaction to illness and surgery and few of these involved explicit enquiries by the nurse or disclosures by the patient. Most interactions were task oriented and in general nurses spent considerable time with the patients.

In-depth interviews with patients revealed that they perceived nurses as being very busy, cheerful and energetic and should not, therefore, be burdened with patients' worries. Patients thought the nurses were concerned with their physical well being and Maguire et al suggest that patients appear to "strive hard to maintain the appearance that they were coping well, even when this was patently not so". Few details are given of the research method employed in this study and it may certainly be that patients' accounts of interactions may not give a full and accurate picture. However, the findings are interesting and support previous data related to nurses' avoidance of all but superficial and task oriented contact with cancer patients (Bond 1978). The fact that patients appear to consciously adopt a passive role, perceiving the nurses as "busy" and not to be worried is important. If this is the case, the responsibility for taking the initiative in encouraging patients to discuss problems and anxieties falls even more to the nurses.

The diagnosis of cancer is often automatically associated with death or dying and it is interesting to note that the few studies which have explored interactions between nurses and patients who are dying generate similar findings to studies of cancer patients. These studies, like those of nurses and cancer patients, have tended to use research methods such as field studies and participant observation in order to build a general picture of staff-patient interaction. Sudnow (1967) labelled nurses as 'non-announcers', that is, that they avoided giving patients specific information about their condition and especially their imminent death. Coser (1958) also found nurses reluctant to communicate with dying patients and Glaser and Strauss (1964) maintain that nurses collude with doctors and other staff to keep dying patients in a state of 'closed awareness'.

e) Studies relating to interaction between nurses and patients in the community:

The contacts that nurses who work in the community have with their patients differ in several important respects from the contact which occurs between nurses and patients in hospitals. Community nurses tend to have their own caseloads and, where care is prolonged, their relationships with patients can be more enduring. The patients often relate to one nurse instead of several and as a general rule nurse and patient will spend longer periods of time in one-to-one interaction than they would in hospital. From this it might be expected that the patterns and content of communication may be substantially different to that occurring in hospitals. Little research has been undertaken in the U.K. on the communication aspect of care in the community. However, important and relevant research was carried out by Johnson and Hardin (1962) in the United States on the content and dynamics of home visits by Public Health Nurses. The aim of this study was to investigate the verbal behaviour of nurses and patients in face to face contact and to provide information on how nurses carried out elements of their nursing role, including the use of communication skills. The verbal interactions occurring in 287 home visits were tape recorded, transcribed and subsequently analysed. An attempt was made to identify variations in patterns of verbal behaviour and to explore possible factors and influences associated with the variations.

The findings related to the proportion of time spent by nurses on different topics are of particular interest. In all cases the topics taking up the most amount of time during a visit were those concerned with the patients' physical condition or the treatment being undertaken. Nurses were seen as the dominant figure in establishing the choice of topic and flow of subject matter. Two out of three of all topics introduced in an average visit were initiated by nurses. The amount of non-interaction time (silence) in home visits is also of some interest. All visits contained substantial periods of silence. In two groups of patients - those with a

diagnosis of cancer or C.V.A. (+) - periods spent in silence exceeded the time on the topic of physical care or treatment. The duration of a visit was determined by the reason for the visit, with visits requiring no nursing task intervention being the shortest. The relative amount of time spent in answering patients' questions tended to decrease in longer procedures while the relative amount of time given to statements tended to increase.

These findings are similar to those described by McIntosh (1975) in a study of the nursing activities of district nurses in Scotland. Although verbal interaction was not the prime focus for this study, some relevant date were generated. A total of 581 home visits were analysed for their communication content and an attempt was made to identify the range of topics discussed by patients and nurses. Conversation was categorised by the observer into one of eleven possible categories. On average nurses covered five topics during every visit and the two topics most frequently encountered were patients' medical or nursing history or symptoms and social chat. Topics related to reassurance, social or emotional problems, management and teaching were observed infrequently. These findings again emphasise the dominance of the task focus both in practice and in conversation during these home visits. Kratz (1974) also noted the stereotyped and consistent patterns of verbal interaction between district nurses and their patients. However, McIntosh's findings can give only a superficial picture of the verbal interactions which occurred. While Johnson and Hardin (1962) used tape recordings of the visits, McIntosh's data are derived from 'on the spot' coding by the researcher observing the home visits. Although she suggests that nurses have a "conscious or unconscious routine of giving and seeking information" the data do not allow for any close examination of the mechanisms of the verbal interactions.

(+) C.V.A. - Cerebral Vascular Accident or Stroke

In a small scale exploratory study, Jerrett (1978) observed the domiciliary nursing care given to paediatric patients who were under a home care scheme during 35 home visits. The most frequently discussed topics during visits were physical symptoms, treatment, procedures or tasks. Return visits to clinics, referrals and nurse's return visits were next in frequency. Parents' feelings or anxieties and responses to their child's illness were rarely discussed. Jerrett suggests that "nurse s appeared to have control of the situation and often led the conversation toward physical symptoms and medical plan of care" (p 13). This suggestion finds tentative support from the preliminary findings of a study of health visitor patient interaction which is currently in progress (Clark - personal communication).

f) Studies relating to interaction between nurses and patients in Intensive Care Units, Casualty Departments, Paediatric Wards and Gynaecological Wards

A search of the literature has revealed that isolated but relevant studies have been undertaken in the U.K. in a variety of specialities not covered so far in this chapter. This section, therefore, contains a brief review of these studies.

Ashworth (1976) undertook a comprehensive investigation of communication between nurses and patients in 5 intensive care units. Such patients are often unable to communicate easily and for this reason Ashworth places considerable emphasis on non-verbal aspects of communication. However, the observers also recorded all verbal interactions between nurses and patients on the units studied. These verbal interactions were noted on recording sheets at the time of occurrence and were coded in terms of 'bits' - a sentence or part of a sentence which stands on its own. The 'bits' were classified according to 8 pre-determined categories - 'social superficial', 'social concerned', 'short-term informative', 'questions', 'long term informative', 'command or request', 'reassurance' and 'other'.

Ashworth found that, on average, verbal interaction occupied 14% of total nursing time. 'Short term informative' and 'requests' or 'commands' accounted for 50% of this total and 'questions' accounted for a further 21%. Thus communication tended to be limited and superficial. However, the categories of verbal interaction used were complex and not easy to define clearly. It may, for example, be difficult to distinguish between 'short term informative' and 'long term informative' when coding is immediate. Ashworth concludes that the nurses' approaches to communicating appropriately with each patient according to his needs were less professional than in some other aspects of care.

This pattern of short, superficial verbal interaction was also found in a very different setting by Wood (1979). In a small study of nurse-patient communication in an accident department Wood was a non-participant observer and used an observation checklist to record interactions. The results show that the interactions were mainly nurse initiated, were almost entirely terminated by staff and were of very short duration. She found that the content of the interactions were almost entirely focussed on the patient's physical needs with little mention of social and psychological needs.

Pepper (1977) undertook a sociological analysis of nursing in a general hospital and included a gynaecological ward in her study. She worked on the wards as a participant observer using field notes and, in consequence, her specific observations about nurse-patient interaction are necessarily in the form of general statements rather than quantified categories. However, her findings are consistent with those of other researchers discussed above in that she describes verbal interaction between nurses and patients on the gynaecological ward as task-oriented, stereotyped and superficial. She noticed that "nurses did not often approach their patients or talk to them, unless they wanted to do a physical task for the patient" (p 203). Moreover, she noticed that "in slack periods nurses did not usually spend time talking to patients" (p 205).

The importance of maintaining adequate relationships with both staff and parents when children are in hospital has long been recognised. (M of H, 1959).(+) In this context the interaction which occurs between nurses and patients and their parents is clearly crucial but few studies have been undertaken which specifically examine such interaction. Stacey et al (1970) investigated aspects of the experiences of children and their parents when the children were hospitalised. As part of this study the amount of contact that each child who was observed had with nursing staff was recorded. Eleven children between the age of 4 and 5 were observed on two wards using a time sampling framework. It was found that the amount of nursing contact which took place with each child ranged from 12-42 minutes per day - the average being 28 minutes a day. In a larger study of nine paediatric wards Hawthorn (1974) investigated how the nurses spent their time. Forty-five categories of nursing activity were used for classification purposes. Data were collected using a time sampling framework and 163 nurses working on nine wards in 7 different hospitals were observed. Data were recorded relating to the nurses' activities and the children's behaviour. It was found that nurses spent approximately one third of their time giving direct nursing care. Each child received an average of 75 minutes of nurse attention each day, or 11% of the time observed. Children were observed to be alone and awake 38% of the time, miserable and awake 9.7% of the time and appeared really upset or crying 4.8% of the time (an average of 36 minutes per day). There were clearly times, therefore, when children needed, but were not getting, interaction with nurses. However, this study again only emphasises the problem of lack of interaction - it tells us little about the quality of the verbal interactions which took place between the children and their nurses.

(+) M of H - Ministry of Health (Platt report)

g) Studies relating to interaction between nurses and patients on general wards

There have been many studies which examine aspects of nursing care on general wards and a proportion of these have indirect relevance to nurse-patient interaction. For example, some of the early studies of nursing workload mentioned previously (Goddard 1953, S.H.H.D. 1967) included estimates of activities in general wards which showed that nurses spent little time in verbal interaction with patients. Many other studies draw attention, in a general way, to the problems due to lack of communication or interaction between nurses and patients. For example, Roberts (1975) investigated the process of patients' discharge from hospital and pointed out that only 11% had received very specific advice and instructions and that, of these, only one quarter reported that a nurse had been involved. Similar findings related to recently discharged patients were reported by Skeet (1970). Franklin (1974) studied the problem of anxiety experienced by newly admitted patients on a general surgical ward. Some patients felt that the nurses did not understand their feelings and one third of the patients in two of the four wards studied felt they had been unable to ask all the questions they would have liked to have had answered. Many patients disagreed with the statement "the nurses tell me what will happen to me".

Such studies, while not explicitly examining nurse-patient interaction do, by implication, suggest that patients would have liked more interaction than they actually received. Stockwell (1972) examined nurse-patient interaction patterns in order to throw some light on the issue of which patients are 'popular' and which are 'unpopular'. Stockwell was unable to relate the degree of nurse-patient contact to levels of popularity but made several general observations about nurse-patient interaction. She also found that nurse-patient interaction was almost entirely task related and superficial and also reports that some nurses felt that talking to patients at other

times would result in disapproval from ward sister or colleagues. Stockwell also observed nurses undertaking nursing activities such as TPRs without exchanging any words with the patient. Nurses also claimed that the conversation they had while carrying out nursing tasks was "adequate".

Dodd (1974) investigated nursing care on general wards of a teaching hospital and also found that verbal interaction with patients was limited, and noticed that nurses did not spend time talking to patients when they were not busy. Interactions were again task oriented and as Dodd says "Patients who were up and about and required no nursing service of any kind tended to be ignored" (p 171). This study, like the others reviewed above, reinforces the overall picture about nurse-patient interaction on general wards. These studies have not examined the detail of nurse-patient verbal interaction which is an essential part of this picture. However, one study (Faulkner 1980) undertaken recently, does give a more detailed view of verbal interaction on general medical wards. This study is of particular relevance to the present research and is thus reviewed in more detail below.

Faulkner (1980) designed a study to determine the student nurse's role in giving information to patients. The study was divided into two parts - the first part involving groups of nurses giving pencil and paper answers to hypothetical questions from a range of patients. The second part of the study consisted of observation of nurse-patient interaction on a male and female medical ward. This was combined with monitored conversations using a radio microphone. These recorded conversations were then selectively transcribed and coded in terms of the information giving or receiving processes which took place.

Fifteen coding categories were derived from the actual conversations. These were 'specific', 'implied' or 'vague' questions; 'directive' and 'acceptance', 'rejection' or 'ignoring directive'; 'reassurance', 'offering information', 'non sequitur' and 'true', 'misleading', 'vague' and 'no response' to a question. Conversations were also coded according

to whether they were 'social', 'task oriented' or 'disease oriented.' Faulkner found that 19.04% of all conversations were in some way related to information giving. She found that significantly less information was given on disease oriented topics but patients also asked fewer disease related questions.

The mean length of verbal interactions with patients was between 2 and 3 minutes, and conversations with male patients were shorter than those with females. Faulkner reports that many patients' questions were not answered and that this tendency was consistent across all types of questions, i.e. task, social and disease oriented exchanges. She suggests that nurses have the ability "to avoid answering questions", and that the "nurses' tendency to not answer patients' queries is not necessarily dependent on the nature or possible threat of the question being asked" (p 241-242).

This study was felt to be very relevant to the research described in this thesis although Faulkner's categorisation scheme and methods can be criticised. The categories are not clearly defined and any system which involves the simultaneous categorisation of both nurses' and patients' contributions can cause confusion. In addition, Faulkner failed to use any additional coders for the categorisation process and this must raise questions about reliability and bias.

However, this study has important implications for the study of nurse-patient verbal interaction. The principle of examining actual examples of nurse-patient conversation allows a deeper level of analysis of the processes involved- in this instance the process of information exchange. While Faulkner suggests that nurses deliberately avoid giving information she does not examine the processes within nurse-patient interaction by which this could occur. There is, therefore, a need to take such analyses further and deeper in order to increase our understanding of the mechanisms involved in nurse- patient interaction.

2.5 Summary

The literature reviewed in Section 1 of this chapter suggests that patients have specific and identifiable communication needs, the fulfilment of which requires skilled verbal interaction by nurses. The benefits of nurse-patient communication were discussed in Section 2 in a review of some of the many studies which demonstrate the measurable value of nurse-patient verbal interaction in terms of both physical and psychological factors. The extent to which patients are satisfied with the communication element of their care was discussed in the third section of this chapter. At the end of this section (p 36) the following question was posed: "Given that it is clear that patients have important communication needs and given that it is also clear that good communication can have demonstrably beneficial effects on patients' well being, why are patients dissatisfied with this aspect of the care they receive?" The studies reviewed and outlined in Section 4 of this chapter point to some possible answers to this question by highlighting areas in which nurse-patient verbal communication may be unsatisfactory or ineffective.

The findings of several of these studies indicate that nurses spend very little time engaged in verbal interaction with patients. Moreover, when verbal interaction does occur it tends to be superficial and task oriented (Duff and Hollingshead 1968: Stockwell 1972: Wells 1975 and Cormack 1976). Other authors go further and suggest that nurses use a range of tactics to avoid giving patients information. (McIntosh 1975: Bond 1978 and Faulkner 1980). Quint (1965 a) also hypothesised that nurses attempt to control all interactions in order to limit the quantity and depth of verbal communication with patients. Although much of the evidence cited in Section 4 of this chapter would lend support to Quint's hypothesis very little firm data have been collected which can answer many of the questions and issues raised. The following areas need clarification: To what extent is nurse-patient interaction limited or controlled? If such control exists,

is it deliberate or unconscious? Is it the nurse or the patient who controls or limits interaction? Why should such control or limitation occur?

It is suggested that previous research has failed to cast much light on these issues for two reasons. Firstly, few of the studies reviewed have taken as their primary focus the dynamics and content of nurse patient conversation. Most of the relevant research has examined communication as just one strand of a project, the broader aims of which include, for example, description of nursing activities as a whole (Goddard 1953: S.H.H.D. 1967) or of specific areas of nursing as in Wells (1975). Secondly the research methods used in many of these studies do not generate data which are appropriate for detailed analysis of the content and dynamics of nurse-patient conversations. The majority of the studies described used methods such as participant or non-participant observation and/or pre-coded schedules to record the interactions under scrutiny. Such approaches have, without doubt, generated useful data, but they clearly do not allow for detailed, post-hoc analysis of interactions.

However, several possible explanations for the fact that nurse-patient interactions appear to be limited have been put forward on the strength of these broad based studies. For example, it has been suggested by several authors (Skipper 1965: Stockwell 1972: Dodd 1974: Pepper 1977 and Maguire 1980a) that patients are constantly aware and concerned about how busy the nurses are, and in consequence avoid seeking information or taking up nurses' time in conversation. Menzies (1960) argued that the hierarchial and task-oriented nature of nursing is perpetuated in order to allow nurses to defend themselves from the anxiety that would be generated by close involvement, interaction and communication with patients. Certainly, as previously discussed,

a consistent finding of the studies reviewed above is that verbal communication occurring in all situations tends to be superficial and limited. This may lend support to the proposition that it is the nurse rather than the patient, who controls the interaction.

Faulkner (1980) and Ashworth (1976) identified the failure of many nurses to demonstrate any knowledge or use of basic communication skills in their dealings with patients. Earlier studies undertaken in the U.S. (Duff and Hollingshead 1968) have also drawn attention to this problem by demonstrating that nurses are relatively less skilled at communicating or showing empathy than many other groups of workers. This lack of 'skill' may in turn be an important influence on patterns of nurse-patient interaction.

There is no doubt that the findings of the many studies reviewed in this chapter raise many important questions about the content and dynamics of nurse-patient interaction. The answers to such questions may lie in the detail of the interaction processes involved, and it is suggested that there is a need to go further in the pursuit of a systematic and careful study of different aspects of verbal interaction.

Many important dimensions of nursing care such as being observant, giving emotional support, influencing patients' behaviour, and being a health educator depend upon verbal communication between nurse and patient. In order to understand these aspects of nursing it is necessary to have an accurate data base which will allow description of the content and dynamics of what nurses and patients say to each other. This review of the literature on nurse-patient communication has not revealed any published work which provides such a data base. As discussed, the majority of the studies described involved the use of research methods such as participant or non-participant observation to record the interactions under scrutiny. A different approach to data collection and data analysis is therefore necessary in order to provide an appropriate data base.

More recently, a few researchers (Wells 1975: Faulkner 1980: Macilwaine 1980) have successfully employed some form of tape recording in their research designs and this is a method which clearly has potential for facilitating post-hoc analysis of conversational data. These researchers, particularly Faulkner, have been able to describe aspects of nurses' verbal interactions with patients in very general terms but none to date has attempted a deeper analysis of the content and structure of nurse-patient conversations. However, the next logical step in developing an understanding of nurse-patient verbal interaction, would seem to lie in deeper analysis of such interactions. The aim of the research reported in this thesis was, therefore, to collect a data base of real-life nurse-patient verbal interactions and to develop descriptive methods which would allow an in depth analysis of the content and dynamics of the interactions and of the verbal mechanisms used within them. The method of choice for examining such data is that of interaction analysis. Researchers in many fields such as educational research, linguistics and doctor-patient communication have used a variety of these techniques for analysing conversational data. They have also been used by a small number of nurse-researchers in the U.S.A. A review of the use of interaction analysis in nursing and other fields is presented in Chapter 3.

In view of the proposed depth of analysis envisaged it was essential to restrict the scope of data collection and desirable to focus on a specific area of nurse-patient interaction. It was felt important to identify an area of nursing which encompassed a range of patients in terms of factors such as diagnosis, treatment, age and sex. It was also necessary to locate an area where nurses of all stages of training as well as trained staff would be found and where a diverse range of nursing activities would take place. General wards, both medical and surgical, were felt to be most appropriate, in terms of meeting the above criteria, and, of these,

surgical wards were of particular interest for two reasons. Firstly, the needs of surgical patients in terms of information, advice, support and education on discharge are well recognised (GNC 1977). Moreover, the benefits of effective verbal interaction to surgical patients in terms of reduced anxiety and pain have been documented (Hayward 1975; Boore 1978). Secondly, the review of the literature revealed no previous studies of nurse-patient interaction on surgical wards and it was hoped that the proposed research might provide some valuable information in this area.

A decision was made, therefore, to restrict data collection to nurse-patient conversations on general surgical wards. These data would then be subjected to extensive analysis using appropriate forms of interaction analysis. Interaction analysis has been employed by many researchers examining interactions in fields other than nursing. Some of these studies are described in the chapter which follows.

CHAPTER 3

REVIEW OF LITERATURE: B) INTERACTION ANALYSIS

CHAPTER OUTLINE

3.1 Principles of content analysis and interaction analysis.

a) Definitions

b) Level of analysis

c) Units of analysis

d) Constructing categories

e) Timing of categorisation

f) Reliability

Review of Studies involving the use of interaction analysis.

3.2 Studies of Group Interaction

3.3 Analysis of Classroom Interaction

3.4 Analysis of Doctor Patient Interaction

3.5 Analysis of Nurse Patient Interaction

3.6 Summary

CHAPTER 3

REVIEW OF LITERATURE: B) INTERACTION ANALYSIS

As discussed previously, the aim of the study reported in this thesis was to develop methods of collecting and analysing real examples of nurse-patient conversations. In particular it was hoped to use a form of interaction analysis in order to analyse these data at a deeper level than that attempted by other researchers in the field. This in turn would facilitate description of the content and dynamics of such conversations. As Bales (1950) says: "Interaction analysis should permit discovery of empirical generalisations and the necessary approach is to break down action and situation into component parts, or to abstract from them analytically" (p 31). This chapter examines some of the factors which must be considered when using systems of content or interaction analysis in research and includes a brief review of the methods used by researchers from many different fields to analyse verbal interactions in depth. While the methods described can all be subsumed under the heading of 'interaction analysis', each involving some type of system for classifying or categorising aspects of interactions, these analysis systems or schema vary a great deal. In consequence, considerable time was spent during this study examining existing interaction analysis methods. This was felt to be essential both in order to assess what could be achieved by using such methods and in order to identify an approach or approaches which would be most appropriate or relevant to the problems of analysing nurse-patient conversation data.

The chapter begins with an outline of the principles to be considered when using content analysis and interaction analysis methods and then moves to a description of some of the research areas where interaction analysis has been applied. The chapter concludes with a brief discussion of the relative advantages and disadvantages of the use of interaction analysis methods in general and of the relevance of the existing categorisation systems for this project in particular.

3:1 Principles of content analysis and interaction analysis

a) Definitions: Interaction analysis is a form of content analysis and content analysis is a research method which has been developed to aid the investigations of areas in which communication content serves as the basis for description and inference. Data examined using this method are the verbal and other symbols which represent communication, such as books, diaries, essays, letters, newspapers and elements of human interaction and conversations. It is when the focus of interest is on the interaction between individuals that the term interaction analysis is employed. Interaction analysis is concerned with both verbal and non-verbal aspects of interactions, but the focus of this thesis is on verbal interaction. Thus the emphasis in this chapter is upon the principles of analysing verbal interaction and upon studies which have used these methods to analyse verbal interaction in a variety of settings.

As has been discussed interaction analysis is a form of content analysis and, as such, many of the principles applying to the use of content analysis as a method for analysing data also apply to interaction analysis. Several attempts have been made to define content analysis. Stone (1964) states that "Content analysis refers to any procedure for assessing the relative extent to which specified relevances, attitudes or themes permeate a given message or document" (p 11). Osgood (1959) says "..... we define content analysis as a procedure whereby one makes inferences about sources and receivers in the message they exchange" (p 36), while for Holsti (1968) "content analysis is any technique for making inferences by systematically and objectively identifying specified characteristics of messages" (p 601). Thus while there are clearly many different definitions of content analysis it is generally agreed that the characteristics of the method should include objectivity, and system. Content analysis gives a framework for studying, analysing and determining the relative emphasis or frequency of various communication elements. It is, in effect, also a method of observation in that it takes aspects of communication and observes, analyses. and asks questions of them.

An essential component of any system of content or interaction analysis is that it enables complex data to be reduced to manageable proportions through the use of appropriate coding, categorisation or classification schema. Many factors have to be considered when developing such schema, factors such as the level of analysis to be undertaken, the unit of analysis to be used, numbers of categories involved, the presence of or absence of a theoretical framework and issues of reliability and validity. These factors are discussed below in the context of using interaction analysis for describing nurse-patient verbal interaction data.

b) Level of analysis: Fox (1970) has suggested that an important distinction must be made between content analysis which is undertaken at the manifest level, ie, the surface meaning of the content and that which is done at the latent levels, ie an analysis of the deeper levels of meaning which is implied or embedded in the content. Latent analysis involves going beyond the words and inferring the meaning or implications behind them. It is clearly not possible to undertake such an analysis reliably without recourse to the original communicators. Any system of content analysis must be objective and this requires that only manifest symbols appearing in an interaction can be coded. However, there are many dimensions on which interactions can be analysed and the more ways in which content is analysed the more information will result. In this way it has been suggested that the latent content may become manifest (Berelson 1954). In the context of nurse-patient verbal interaction it was hoped to use the techniques of interaction analysis to examine and increase our understanding of the content, structure and dynamics of such interactions.

c) Units of Analysis: An important decision which has to be made when embarking on content or interaction analysis is that of which unit to use as the basis for analysis. The single word or short phrase is perhaps the most commonly used as a focus for content analysis, particularly in the examination of documents, open ended survey questions and newspaper data when generating a categorisation system. The problem which has to be faced with a unit of this size is that of manageability of data and it is, therefore, often only appropriate where the data base is limited. The increasing use of computer content analysis programs (Stone 1964) has increased the feasibility of large scale analyses based on words as the unit.

However, if the need is to gain a picture of the dynamics of verbal interaction a unit larger than the word or phrase may be necessary. Interaction analysis is a method used by researchers in many different disciplines and their specific interests are often reflected in the types of unit for analysis they use. For example, a linguistic approach to verbal interaction (Chomsky 1957) may involve the use of units such as paragraphs, sentences, clauses, words, morphemes, etc. A sociolinguistic approach, referred to as discourse analysis (Sinclair and Coulthard 1975) has been used to analyse classroom interaction and would involve units such as lessons, transactions, exchanges, moves and acts. A more pragmatic approach to the analysis of everyday conversations would use units such as words, utterances or turns, sentences and complete conversations (Soskin and John 1963: Schegloff1968; Sacks 1972). Another important method of defining a unit for analysis is that of the 'timed unit'. Here a certain period of time is determined - say 15 seconds, 1 minute or 5 minutes - and all interactions within that particular time unit are then coded (Jaffe 1961: Flanders 1970: Scheflen 1973). As can be seen there is clearly a large range of possible units for use in content and interaction analysis and the ultimate choice of unit must always depend upon the rationale of a particular research project.

d) Constructing Categories: As has been discussed, interaction analysis involves the classification of units or elements of verbal behaviour into categories and it has been said that 'content analysis stands or falls by its categories'. (Berelson 1952, p 147). There are potentially as many ways of classifying content data as there are questions to be asked about such data. Content categories can be divided into what is said (the semantic content) and how it is said (the syntactic process). It is also possible to analyse dimensions of content in terms of simple word counts (Klein and Maccoby 1954), verbal and non-verbal behaviour (Bales 1950) and attitudes or feelings (Ogborn and Bliss 1977) and each approach varies according to the extent that it is necessary to interpret the data before categorisation. Word counts, for example, require little interpretation while the analysis of behaviour requires more interpretation and some evaluation. Indeed the process of deriving categories often involves the analysis of evaluative material and Bales (1950) developed his categories for group behaviour from descriptive accounts of group activities and peer assessments of group behaviour.

Once the focus of an analysis system has been identified there are different ways in which interaction analysis and categorisation processes can be approached. These can then be linked to two kinds of research strategy. One strategy involves starting with a theoretical framework which determines the indicators to be assessed and the way in which categories are constructed. This inductive approach can be problematical if the theoretical perspective is inappropriate or conceptual guidelines are weak. It can be, however, used most successfully if an existing and tested categorisation system is used on appropriate data. An alternative strategy is to identify indicators and categories from the actual data base while delaying theoretical or conceptual definition until evidence of a stable phenomenon is observed. This empirical approach has clear links with the philosophy and principles of grounded theory (Glaser and Strauss 1967).

Thus it is possible to use the categories from an existing scheme, devise new categories on the basis of a theoretical perspective, devise categories from the actual data collected, or use a combination of these approaches.

However, regardless of how categories are derived, categories must always be explicit and this means that they must be well defined. As Medley and Mitzel (1963) (p 301) say "the language in which the behavioural cues are described should be understandable to anyone who is similar in sophistication to the original observers". This has clear relevance to the aims of research reported in this thesis where it is hoped that nurse teachers and nurses themselves may be able to use and understand the analysis framework.

Systems of categories vary both in number and exhaustiveness. Medley and Smith (1964) describe a simple present/absent discrimination as a category system, while Hays and Larson (1963) for example offer 44 categories in their system. With such large numbers of categories distinctions between categories must necessarily be fine and this can present problems of definition and reliability. Moreover large number of categories does not mean that the system is exhaustive. Indeed Medley and Mitzel (1963) (p 300) suggest that not more than 10 categories should be used but that a single coding unit can be assigned to several categories or different categorisation schemes, thus increasing the sensitivity of the analysis process.

There is an inevitable conflict between the desire to produce a categorisation system which is comprehensive and finite, allowing classification of all elements of the data base, and one which is more limited and designed to capture only certain aspects of the data. Sinclair (1973) says that the whole of a data base should be described and suggests that this is not a difficult criterion to meet because it is always possible to have a 'ragbag'

category into which go all items not positively classified by other criteria. There are obvious problems attached to such a philosophy in terms of both practicability and desirability. A categorisation process has value if it is 'useful' and it may be more appropriate to concentrate on classifying certain aspects of data rather attempt to classify the whole. Sacks et al (1974) believe it is inappropriate to describe and categorise all data, arguing that such approaches are inevitably incomplete and compromising and Labov (1972) also advocates the description and analysis of selected elements of interaction data.

e) Timing of categorisation

A decision has also to be made when using interaction analysis methods about the timing of any coding or categorisation of data. The choice usually lies between coding data at the time of occurrence (eg Bales 1950) or coding on a post-hoc basis (Sinclair and Coulthard 1975). The decision about when to code is clearly linked to the method by which categories are constructed as discussed above. In order to formulate the coding of interactions at the time of their occurrence it is clearly essential that a well formulated categorisation system precedes the collection of data. When the deductive or empirical approach to content analysis is taken, however, categorisation occurs after a record of the behaviour has been made. An advantage of this approach is that a greater variety of categories can be applied and post-hoc categorisation may in itself suggest new or more relevant frameworks.

f) Reliability

The concept of reliability is important to all content or interaction analysis schema. The overall results of a research project using these methods will ultimately depend upon the reliability of the coders and the units they are examining

and the categories they are asked to use. It has been said that the most important goal of content analysis or interaction analysis designs is to formulate categories

> "for which the empirical evidence is clear enough so that competent judges will agree to a sufficiently high degree on which items of a certain population belong in the category and which do not", (Schutz 1958, p 512).

Reliability of classification will be a function of how clearly categories have been defined, how relevant they are and the type and numbers of discriminations which coders are asked to make. In some circumstances it is often necessary to train coders to use the analysis categories. The intercoder agreement between independent raters should always be computed by correlation or percentage of agreement methods.

Review of studies involving the use of interaction analysis

As discussed earlier, a central objective of this study was to identify the approach or approaches to interaction analysis which would be most appropriate or relevant to the analysis of nurse-patient conversation data. In the second half of this chapter, therefore, a very brief and selective review is given of some of the many areas of research where interaction analysis methods have been applied to a variety of verbal interaction or conversation data.

The detailed observation of verbal interaction and conversation has become more commonplace over the past decade. Many linguists, psychologists and sociologists have become involved and some of the most systematic studies have concentrated on mother-child interaction. These have shown a particular interest in the way in which children acquire conversational rules and the part that maternal interaction plays in this development. For example, Garvey (1975) has studied the way in which children use 'requesting' for gaining information or action and Turner(1973) examined the relationship of social class to children's use of language.

Some research has also been undertaken on the rules and patterns of natural conversation. Sacks et al (1974) have made substantial contributions to the understanding of turn-taking or sequencing in conversation. They describe how speakers can exert 'control' upon another participant in a conversation by, for example, speaking the first part of an 'adjacent pair' such as a question or a greeting. This automatically constrains the next speaker to produce an appropriate answer or response to the greeting.

Schlegoff (1968) has examined the ways in which interactions are initiated or 'opened' and terminated or 'closed'. Conversations nearly always end with a 'closing pair' composed of phrases like 'goodbye', 'so long', 'see you', etc. Schegloff and Sacks (1973) describe the way in which interactors attempt to indicate that they wish the conversation to draw to a close by using 'preclosing' phrases such as 'alright', 'okay', 'well', etc. Sacks (1972) has also examined the process of topic change in everyday conversation, observing that in 'good' conversation talk drifts easily from one topic to another and suggests that the relative frequency of new topics could be a measure of the quality of the conversation. Again control can be exerted by any participant by failing to take up a new topic. This can be achieved by "skip-connecting" that is referring back to the last but one utterance - their own.

It can be seen that these kinds of general conversational principles could provide a useful framework for the analysis of dyadic interactions in specific settings. However, it is of interest that few of the studies reviewed in this chapter have integrated this type of analysis into their analysis framework. Studies have been selected for inclusion where it is felt that either the approach used, the data examined or the research findings have some relevance to the problems of analysing nurse-patient verbal interactions.

3.2 Studies of Group Interaction

No review of interaction analysis would be complete without reference to the work of Bales (1950). Bales conducted exhaustive studies of the interactions which occur between members of formal groups. His system is known as Interaction Process Analysis (I.P.A.) and 12 behavioural categories were devised on the basis of recorded simulated group meetings. These categories are as follows:-

1. 'Shows solidarity'
2. 'Shows tension release'
3. 'Agrees'
4. ' Gives suggestion'
5. 'Gives opinion'
6. 'Gives orientation'
7. 'Asks for orientation'
8. 'Asks for opinion'
9. 'Asks for suggestion'
10. 'Disagrees'
11. 'Shows tension'
12. 'Shows antagonism'

In this system the observer records each interaction between members of a group in terms of who initiated it, who it was directed at, and the nature of the interaction. One of the 12 categories is selected and used to describe each unit of interaction. There are four groups of categories - positive emotional responses, task responses, task questions and negative emotional responses and using these categories it is possible to measure the frequency of certain kinds of behaviour and build up profiles of individual and group activities. Bales' categories were developed for describing the dynamics of group sessions - often psychotherapeutic sessions, but his system has been adapted and used perhaps more than any in existence by a range of other researchers including social psychologists (Borgatta 1963) educational researchers (Pride 1969) and those involved in nursing research (Conant 1965, Quenzer 1973). Conant (1965) examined tape recordings and transcripts from 48 home visits made by public health nurses to 24 antenatal patients in the U.S.A.

She used Bales' I.P.A. system to analyse the nurse-patient verbal interactions which took place during these visits. Conant found large individual differences in patients' and nurses' interaction patterns, with some nurses asking many questions and some very few and some nurses being very informative, while others gave little information. Nurses consistently asked more questions than patients did, and made more suggestions than patients. Patients were found to joke and laugh (tension release), to disagree and give an opinion more than the nurses.

However, despite its wide usage; I.P.A. has disadvantages as a categorisation system. Researchers have reported problems arising from definition of the units of interaction to be analysed (Conant 1965). It has also been shown to be inadequate for the detailed analysis of dyadic interactions (Quenzer 1973) and the categories are sometimes found to be heavily evaluative (Olmstead 1959). This means that coders must be trained to use the system in order to achieve high inter-coder reliability and this detracts from its potential for use in a wider context. Perhaps the most important limitation of Bales' system lies in the fact that 'content' is largely excluded from analysis and details of individual stimuli and responses are 'lost'. For example if a participant is scored for giving information (category 6 - giving information) there are no details about the form that the information took and whether it was relevant or irrelevant. For the purposes of this study, therefore, it was felt that Bales' interaction analysis system would not yield the type of detailed data required.

3:3 Analysis of Classroom Interaction

The interaction that takes place between teachers and pupils has received a great deal of attention from researchers over the past two or three decades. Researchers from a wide range of disciplines have been concerned with analysing pupil-teacher interactions and much of the early work has been reviewed comprehensively by Medley and Mitzel (1963). The approach

taken in some more recent studies was felt to have potential relevance to the analysis of nurse-patient interaction and these are discussed below.

Bellack et al (1966) suggest that all teacher-pupil interactions can be described in terms of four 'moves'. Structuring moves are those which are intended to elicit a response, as for example, requests or commands. Responding moves have a reciprocal relationship with soliciting moves and reacting moves which are modifying moves, not elicited by previous moves. Bellack et al propose that sequences of moves constitute teaching cycles, identifying 21 cycles in all but noting that a 'typical' one begins with a structuring or soliciting move, continues with a responding move from the pupil and ends with an evaluative reacting move from the teacher. It can be seen that while these categories have value in describing the overall pattern of pupil-teacher interaction, they are broad and rather loosely defined. As such they fail to allow description of the detailed content of any moves.

Barnes (1969) was concerned with the extent to which teachers encouraged pupils to participate and the kind of questioning tactics teachers use. He quantified the amount of pupil and teacher participation in class and analysed the way in which teachers guided the topic being discussed and the pattern of turn-taking. Teachers' questions were divided into four categories - factual 'what?' questions; reasoning 'how?' 'why?' questions (open and closed); other open questions; 'Won't you?' 'Aren't we?' questions (which do not involve reasoning) and social questions. Barnes analysed tape-recorded pupil-teacher interactions which occurred during 12 secondary school lessons. He found that pupil participation was generally low, that teachers almost always initiated interactions and that the teachers' use of certain types of questions was very consistent. Open questions were rarely identified and "what most impressed us... was the predominance of factual over reasoning questions" (p 22). Barnes' study is of particular

interest because he goes beyond the broad categories to provide detailed data about the content of these pupil-teacher interactions. However, he found that discriminating between categories of questions was difficult:

> "It has so far proved extremely difficult to define the categories in such a way that the analysis can be reproduced by another investigator, nevertheless this seems a potentially useful starting point" (p 21).

The descriptive system proposed by Barnes was, intentionally, only partial. An example of a system which attempts to describe all the data in pupil-teacher interactions is that of Flanders (1970). His system comprises ten categories - seven for teachers, two for pupils and one for 'silence or confusion'. The system was designed for use in coding lessons as they took place, rather than retrospectively from recordings or transcripts. The analysis consists of a series of symbols representing the categories recorded at 3 second intervals. The major feature of this system is the analysis of interactions into 'initiatives' and 'responses' and Flanders' concern was with the topic, how it is controlled and how pupil contributions are utilised by teachers. He found that most teachers used a system of direct teaching, ie took an initiating role, asking closed questions, lecturing, giving directions or criticising the pupils. There was little evidence of indirect teaching in the form of praise, encouragement, using pupil ideas and asking open questions. As in Barnes (1969) Flanders found that teachers dominatedinteractions and restricted freedom of action by controlling the focus of a topic or problem and interjecting their authority. The analysis system has inherent problems, requiring skilled, trained coders, and a great deal of coder vigilance. It also only allows an overall description of the patterns of pupil-teacher interactions as opposed to content and dynamic details.

Perhaps the most exacting and comprehensive attempt to analyse classroom interaction to date is that of Sinclair and Coulthard (1975). They have developed a hierarchical framework for discourse analysis based on five broad categories, the broadest being lesson, then moving to transaction, exchange, move and finally act. Thus the smallest unit of analysis is the act (similar to a clause) and Sinclair and Coulthard propose 21 different types of act denoting the various functions that each is used for. Commonly encountered acts are those of elicitation, directives and informatives. The next category is that of moves of which there are 5 types: framing, focussing, opening, answering and follow-up moves. Each of these moves has a different function. For example a framing move indicates that the teacher regards one stage of a lesson finished and another just about to start. Words such as 'right', 'well', 'OK', etc are used for this purpose and are found in everyday conversation as well as classroom interaction.

There are two major classes of exchange - the boundary exchange and teaching exchange - with eleven subclasses of teaching exchange. Transactions are made up of exchanges and the highest unit of classroom discourse is the lesson, ie a series of transactions. It can be seen, therefore, that this categorisation system is both hierarchical and complex involving the application of many different categories. As the value of the system lies in the sub classes of each part of the hierarchy, it is essential that coders are highly trained. Equally it is a difficult system to interpret in the absence of intimate knowledge of the underlying hierarchical structure.

Sinclair and Coulthard claim that it can be used to describe all aspects of classroom interaction, although they give few examples of the outcome of such descriptions. In further work they have used the analysis system in different settings and an example of an attempt to analyse doctor-patient consultations using this method is described in the following section.

3:4 Analysis of Doctor-Patient Interaction

The interactions which occur between doctors and their patients have been of interest to many different researchers in a variety of disciplines. However, only a few of these studies are reviewed in detail in this chapter. Those selected for inclusion have been selected on the basis of the relevance of the research method or analysis process employed to the study of nurse-patient verbal interaction.

Many researchers have examined doctor-patient interactions because of their concern with the relative success or failure of doctor-patient consultations. Success and failure is assessed in different ways including patient compliance (Ley and Spelman 1965, Caron and Roth 1968) and doctors' or patients' subjective view of the interaction (Siegel and Dillehay 1966: Webb and Stimson 1976). Korsch and Negrete (1972) recorded consultations between doctors and paediatric patients where the parents were also present. The parents were subsequently interviewed and 26% reported that they had neither been given the opportunity to talk about their anxieties nor had they been encouraged to express themselves. Korsch and Negrete also found that many parents were so preoccupied with their anxieties or unspoken concerns that they were unable to listen to the doctor. However, although all such studies have yielded interesting findings, their general approach to analysing interactions has limitations. Few have specifically examined the details of the verbal interactions between the doctor and the patient and in consequence conclusions and implications are often drawn on the basis of overall impressions or subjective reports.

Some researchers have attempted to overcome these limitations by 'meshing' subjective impressions from patients and/or doctors with actual tape-recordings of the consultations. Hughes (1978)

investigated aspects of communication between doctors and patients in cardiology outpatient clinics. By studying transcripts of consultations, Hughes was able to relate patients' complaints of lack of understanding about their condition or dissatisfaction with the consultation to identifiable factors in the verbal interactions. For example he found that patients' inability to tell the doctor that they did not understand him or that they were anxious about something seemed to be related to the doctors dominance in the consultation. Doctors almost always initiated conversation, instigated any changes in topic and then terminated the interview. This kind of doctor control or dominance in doctor-patient interaction has also been reported by a number of other researchers including Coulthard and Ashby (1976), Byrne and Long (1976) whose work is described below.

Coulthard and Ashby (1976) attempted to analyse and describe doctor-patient interviews using the methods of discourse analysis developed by Sinclair and Coulthard (1975) described earlier in the chapter. Their system comprises a linguistic framework which includes exchanges and moves; and there are three types of move - the initiating move, responding move and follow-up move. Coulthard and Ashby (1976) described and analysed 24 tape recorded consultations between doctors and patients. Nineteen of these took place between general practitioners and their patients with the remaining five occurring between patients and doctors in a hospital out patients department. The main emphasis of their analysis was on information seeking and they found that doctors controlled the discourse with patients by taking an initiating role and deciding whether and when a patient could transmit information. They observed that when patients did attempt to initiate, doctors often avoided responding by either treating such initiation as if it was informing or by ignoring the patients initiation and providing an alternative of their own.

This system of analysis would seem to have some potential in terms of describing and structuring verbal interactions. However, its value in terms of providing a tool for in depth analysis of the dynamics of interaction is in some doubt. It must be emphasised that Sinclair and Coulthard's system is essentially a linguistic system - in the sense that the data base is merely exploited as a means of increasing their understanding of linguistic structure. Indeed Coulthard and Ashby (1976) themselves say

> "... our competence is in dealing with discourse and grammar and we are concentrating on discovering and describing how participants produce and interpret coherent discourse according to general rules and structures...." (p 72)

This insight is important, for, as discussed in the first part of this chapter, the success of any attempts to analyse interactions will be determined by the scope of the questions asked by the researchers. While it is possible that discourse analysis may have some structural relevance to the analysis of nurse-patient interaction, its value will be limited to understanding the discourse rules within that interaction. Another serious problem arises from Coulthard and Ashby's admission that their attempts to analyse ordinary conversation had been unsuccessful to date. They have so far been unable to apply their analysis framework to situations which are not structured per se. As the rules and roles in a doctor-patient interview or a pupil-teacher interaction can be predicted, these are then situations which are amenable to discourse analysis. It is also interesting to note that almost all attempts to analyse systematically doctor patient interactions have been restricted to the general practice or outpatient interview context. It is doubtful, therefore, whether the rules and roles of nurse-patient interactions are well enough described and understood to facilitate the use of this discourse analysis system.

In contrast to the work of Coulthard and Ashby, Byrne and Long (1976) approached the task of analysing the verbal behaviour of general practitioners and their patients by adapting the system of analysis designed by Hays and Larson (1963). Although Hays and Larson were concerned with the therapeutic or non-therapeutic nature of nurse' interactions with patients, Byrne and Long found their system a useful basis for the analysis of general practitioners' verbal behaviour. The aim of their analysis was two-fold, involving the description of the actual behaviour of the doctors and the development of a teaching programme designed to train doctors to become more patient oriented in their consultations. During the course of the research over 2,000 doctor-patient interviews were tape recorded and analysed. The categories used for analysis were derived both from the Hays and Larson system and from the actual data themselves. Between 40 and 45 different categories of behaviour were ultimately identified and Byrne and Long suggest that consultations appear to have a maximum of 6 phrases and identify a total of 55 doctor elements of verbal behaviour which can occur in a consultation. Thirteen of these are said to occur commonly in phase 1 (the first minute or so of a consultation), a further 7 are the different forms of interrogation a doctor may use in phase II and 8 are concerned with the ways a diagnosis is formed (phase III). Seventeen different types of behaviour are then defined for when the initiative in a consultation moves to the patient, and in the transitional stage between diagnosis or prescription. The fifth stage occurs when the doctor is describing or planning further treatment and 5 possible behaviours are identified here. In the final phase - that of termination of the consultation - doctors were found to use a further 5 verbal strategies or types of behaviour.

Byrne and Long also identify 8 broad categories of negative behaviour which doctors sometimes use. These are as follows:

a) rejecting patients' attempts to introduce new consultation material by asserting their superiority.

b) reinforcing the doctors' self-position by asserting his status or knowledge upon the patient, e.g. "I think I ought to know what's best for you".
c) denying the patient by shutting out the patient especially if the patient is 'difficult'. They give the example of dealing with drug addicts where the doctor says "I do not want to have you on my list".
d) refusing patients' ideas by becoming irritated at any suggestion made by a patient "That sort of approach will get you nowhere at all ".
e) evading patients' questions as for example where the patient asks "Is it serious doctor?" and the doctor replies "Well let's talk about your diet".
f) not listening.
g) refusing to respond to feeling where the doctor does not encourage conversation about emotions. The example they quote is one where the patient says, "Oh I do feel badly about the whole thing, doctor" and the doctor replies, "Well, take your tablets".
h) confused noise is the situation identified by Byrne and Long where doctor and patient are talking over each other and neither stops to listen to what the other is saying.

From examining their large number of consultations Byrne and Long suggest that 4 broad categories of behaviour can be identified:-
a) those which stem from the doctor's need to know;
b) those which stem from the doctor's need to control or limit the patients behaviour;
c) those which stem from a recognition of a patient's unspoken needs;
d) those which stem from a belief in the autonomy of the patient and the need for his involvement in treatment.

Byrne and Long suggest that categories a) and b) comprise 23 types of "doctor-centred behaviour" while categories c) and d) comprise 19 types of "doctor-centred behaviour". In addition 8 types of negative behaviour were identified, including evasion of patients' questions, not listening and refusing patients' ideas.

Byrne and Long found that before training, the GPs were predominantly negative or doctor oriented in their approach to patients, employing many of the types of behaviour described more generally by Coulthard and Ashby (1976) and Hughes (1978). One hundred and fifteen of the GPs subsequently attended a training course and after receiving training in a patient oriented approach, the GPs behaviour in consultation with patients did in fact change. The amount of time spent in 'patient talk' increased, doctors used 'silence' more often and encouraged patients to open up or expand.

However, in spite of the apparent success of both the analysis scheme and the subsequent training programme, some serious methodological issues are raised. The analysis framework is large and complex and little information is given by the authors about coding procedures and reliability checks. Indeed it is not made clear how the coding was undertaken nor is it clear how many coders were involved. Issues of coding procedure and inter-coder reliability are clearly central to this type of research. Claims that analysis frameworks are useful and valid must be substantiated with evidence that they can be used by more than one individual researcher.

In another study of doctor-patient communication in general practice consultations, Bain (1976) states that his analysis of categories of verbal interaction " proved to be a practical and reliable method of studying the doctor-patient relationship". This study involved the detailed study of a series of 480 tape-recorded consultations between one doctor and his patients. The categorisation scheme consisted of 5 'doctor' categories (social exchange, encouragement, asking questions, problem resolution and instruction) and 5 'patient' categories (presentation of symptoms, answering questions, problem related expression, questions and social exchange). Bain claims that a high level of inter-coder reliability was achieved between himself and one other coder (a psychologist) using these categories. The verbal

interaction data were coded according to 'units of expression' which Bain describes as 'each distinctive verbal contribution by doctor and patient, as defined by the 10 categories of verbal interaction'. This statement implies that the categoristion scheme was all-embracing, and that all interactions occurring between doctor and patient could be allocated to one of the 10 categories.

It has been said that any interaction analysis system should be judged by its 'usefulness' (Holsti 1968). Bain was able to describe the general pattern of doctor-patient interactions using his system. He found that on average there were 61.4 'units of expression' in each consultation, with the doctor contributing 58.5% of these and the patient 41.5%. Social exchange accounted for less than 10% of all interactions. The doctor's interactions were dominated by items of 'problem resolution' and asking questions, whilst the most common category of patient's interaction was presentation of symptoms and answering questions. The doctor used little encouragement and patients asked relatively few questions. Consultations with patients in social class I and II were significantly longer than with those in social classes III, IV and V and the amount of social exchange was also found to be related to social class of patients, with more social conversation occurring between the doctor and patients in social class I and II. Inspite of the apparently simplistic nature of this analysis framework, Bain was able to produce useful descriptive data. However, as he himself points out, the research did take the form of a 'case-study' of one doctor's practice and as such has limitations in terms of generalisability.

Several researchers have been interested in the use of interaction analysis methods for the teaching and assessment of doctors' interpersonal skills. For example, in the research by Byrne and Long (1976) described above, their complex analysis scheme was adapted for use in general practitioner refresher courses. In the United States, Korsch et al (1968) and Helfer and Hess (1970) have developed analysis techniques for the evaluation of interpersonal

skills in medical interviewing. These studies demonstrate that interaction analysis can provide a more reliable assessment of doctors' interpersonal skills in an interview, than traditional global ratings.

Scott et al (1973) also attempted to establish the validity of interaction analysis as a method for evaluating medical students' effectiveness in relating to patients. In this study 36 medical students were video-taped whilst interviewing a role-played patient. Each student was video-taped twice - both before and after learning an interaction analysis method, which consisted of 11 types of verbal behaviour. Each video-tape was then analysed by two trained raters. Eleven categories of 'doctor behaviour' were identified and coded and the raters achieved a high level of inter-rater reliability. A score was computed from each student's performance which reflected the degree to which the medical student's style was open or non-directive. Ten video-tapes were then selected for the validating exercise and these comprised the 5 which achieved the highest 'non-directive' score and the 5 achieving the highest 'direct' score. These interviews were then presented to judges who wereexperts ininterviewing techniques. They were asked to rate effectiveness of the students' behaviour on a 9 point scale. It was found that the judges independently agreed that the students with high 'non-directive' scores were the most effective communicators.

In addition to this exercise, a comparison was made of each student's score before and after learning the analysis method. It was found that 29 of the 38 students became more non-directive after learning the analysis framework. Scott et al's claim that their research demonstrates the validity of interaction analysis methods in this context may be rather extravagant. However, they have been able to show that such systems can be applied in a practical situation and that they can also effectively discriminate between certain styles or types of behaviour.

Another important aspect of doctor-patient interaction which has attracted the attention of both linguists and psycho-linguists is that of the psycho-therapeutic interview. Pittenger et al (1960), for example, examined the first 5 minutes of such an interview in infinite detail. They describe all aspects of loudness, intonation and voice quality as well as giving a phonemic breakdown of vowels and consonents. A similar approach is taken by Scheflen (1973) who analysed in detail an interview between a psychiatrist and different members of a family. He concentrated on the physical and social context of the speech events such as posture and gestures rather than on the words themselves.

Fanshel and Moss (1971) published the analysis of transcripts of 6 sessions of interviews with a married couple. Their analysis illuminates stages of the therapeutic process but concentrates on a detailed examination of the linguistic principles employed during the interviews. In a further study, Labov and Fanshel (1976) describe a single interview between a psychotherapist and a 19 year old girl with anorexia nervosa. They identify several different communicative styles used by doctor and patient and chart the variations in intonation achieved during the conversation.

These studies are of particular interest in terms of the methods used to collect and subsequently analyse data of such complexity. However, the linguistic interests of the researchers always seem to predominate, with the object of study - the doctor-patient interaction - taking a second place.

A further example of research by linguists which has involved a detailed analysis of doctor-patient interactions is that of Candlin et al (1974). The aim of this study was to design course materials for teaching English language and communication skills to overseas doctors practising in the U.K. The preliminary work involved the observation and rating of doctor patient consultations which took place in casualty departments. From these observations the researchers attempted to develop a system of discourse analysis which would allow the description and quantification of doctors'

speech functions. Like many other researchers in this area, Candlin et al were concerned with using such a system as a basis for teaching.

Twenty one doctor 'functions' were identified, each defined by specific verbal behaviours. Categories included 'leave-taking', 'answers', 'reports', 'go-ons', 'diagnose/inform' etc. This 'functional taxonomy' was used as a checklist for observers to make real-time analyses of a further 400 doctor-patient interactions in consultations. It was found that over 50% of consultations contained between 8 and 13 functions. In general, consultations with new patients contained more functions than those with patients who had seen the doctor before. Almost 25% of doctors' total verbal interaction consisted of information extracting functions. Very few instances of doctors using encouraging functions were observed.

This again, is an example of research which was not designed to gain a greater understanding of doctor patient interactions. It is therefore not surprising that the analysis, in spite of its elaborate and careful development, does not yield much useful information about the nature of such interactions. A teaching package based on the function taxonomy was completed but it is not known how valuable it was in practice. Two questions of methodology are raised by this study. One concerns the fact that the functions were derived from observations of consultations. No permanent record was kept of these and it may be that recordings - either audio or video-would have formed a more stable basis for the development of the function categories. The other question is related to the first and concerns the ability of coders to master a complex taxonomy well enough to make on the spot (real-time) recordings of all doctor verbal behaviours in a consultation. No information is given about inter-coder reliability levels, nor how or whether these were obtained.

The studies of doctor patient interaction reviewed above offer some valuable insights into some of the problems encountered in research of this kind. It would seem that linguists and sociologists alike may be attracted to this area by the fact that doctor-patient interactions tend to be highly stereotyped and structured and role definitions are often predictable. They, therefore, form fertile ground for developing linguistic or sociological theory. In contrast, it is the studies by doctors (Byrne and Long, 1976; Bain 1976) which, in spite of methodological problems, may prove to be more relevant and useful to a study of nurse-patient interactions.

3.5 Analysis of Nurse-Patient Interaction

Researchers have been using interaction analysis methods to examine aspects of nursing for nearly two decades. However, interest in such methods has been sporadic and, until recently, almost entirely confined to the United States. A selection of studies which have involved analysis of nurse-patient verbal interactions are reviewed below.

In 1962 in the U.S., Phelps-Matthews undertook a methodologically exacting investigation of the feasibility of using content analysis as a method for measuring the extent to which nurses' responses to patients were 'person centred'. This study was designed in three stages, the first of which was the development of a questionnaire that simulated certain nurse-patient interactions. The second phase involved the development of criteria and procedures for content analysis of nurses' responses and lastly to assess the validity of the instrument (the response to patient inventory). Nine patient statements were prepared, each of which implicitly or explicitly expressed a patients' feelings or concern about safety, security, irritation or conflict. Responses to these statements were obtained from 35 nurses and these data were used to establish criteria for judging "person-centredness" and for defining categories into which the content of nurses' responses could be classified.

The method of content analysis used was the Binary Method developed by Schutz (1958). Content categories are arranged by levels of decision making and at each level a dichotomous decision is required by the judges. For example, one unit of content was that the nurse either elicited information from the patient or did not elicit information. If the information is elicited (and only if it is) then a second decision is required by judges about the nature of the eliciting response.

Written responses to the items on the inventory were obtained from 122 nurses and each nurse was given a person-centredness score on the basis of the analysis of responses to the items on the inventory. The definition of patient centredness was based on the assumption that to understand how a patient is feeling, the nurse needs to encourage and be receptive to the patient's disclosures about himself and his perceptions or emotions. Two-thirds of the subjects gained non-person centred scores. Only 8 nurses gave one or more responses that encouraged the patient to disclose what he was experiencing. In addition Phelps-Matthews found that as years since qualifying increased there was a tendency for person-centredness to decrease.

This represents a well-designed and rigorous piece of research and Phelps-Matthews recognises the potential of the methods used, both for further research and possibly as a teaching method. However, while the value of this as a research method is not in doubt, the level of interpretation required and the degree of complexity involved may make it unsuitable for use as the basis of a teaching method. Attempts to locate further research in this area using this method have failed. It may be the case that other researchers have also been daunted by and discouraged from using this method of content analysis.

A different approach to a similar problem was taken by Methven and Schlotfeldt (1962). These American researchers were concerned with how to assess nurses' verbal interactions with patients in emotion-laden situations. Their aim was to construct an

instrument (The Social Interaction Inventory) which would identify the categories of verbal responses nurses tend to make in emotion laden situations. After extrensive pilotting and refinements the final Inventory consisted of 30 commonly encountered situations known to be stressful. For each situation a choice of 5 different verbal responses was given. Type 1 represented the highest level of empathy in reducing patient stress and Type 5 denoted lack of skill. Methven and Schlotfeldt used the Inventory on 244 nurse subjects with a variety of educational backgrounds. It was found that nurses participating in a course which integrated psychiatric nursing concepts achieved the highest percentage of Type 1 scores. Type 5 responses were rarely recorded but Type 4 responses were more commonly found in nurses who had received the least education. In general it was found that relatively undesirable or unskilled answers were selected more frequently than those which would effectively reduce patients' stress.

Methven and Schlotfeldt's Social Interaction Inventory (1962) was the focus of a further study undertaken in the U.S. by Sethee (1967) which investigated the verbal responses of nurses to patients in emotional situations in public health nursing. Thirty practising public health nurses were asked to respond to 30 public health oriented stimulus situations chosen from 5 alternative responses categorised by the Social Interaction Inventory described above. Sethee found that the majority of nurses' responses were categorised at Types I or III. However, it is interesting to note that when the nurses were asked what kind of help or responses their patients sought, 70% believed that a Type II response was what patients required. Methven and Schlotfeldt's study (1962) like that of Phelps-Matthews (1962) discussed previously, was methodologically rigorous. Numerous judges were used in the early stages of the work, defining and re-defining categories and the stimulus material and possible responses were subjected to extensive pilotting. However, the issue of the high degree of interpretation involving in generating these categories of response is an important one. Type I responses,

for example, are seen to be those reflecting "skill" or "effectiveness at reducing stress." Although intuitively acceptable, it would be neceessary to demonstrate the relative effectiveness of a Type I response over a Type III response in order to validate the categorisation scheme. Another problem raised by both studies is that of the validity of the written response to a simulated situation. It is necessary to question how closely a nurses' behaviour in this context would mimic that of her behaviour in real-life. Indeed it could be suggested that the stimulus material itself and possibly also the response categories should be derived from actual nurse-patient interactions.

A somewhat different approach to analysing verbal interactions was taken by Johnson (1964) in a study of the relationships between the verbal patterns of nursing students and their therapeutic effectiveness. The specific aim of the research was to determine if any quantifiable relationships existed between what was said by nurses to psychiatric patients and the degree of therapeutic effectiveness of each nurse. Nurses' verbal behaviour was classified into one of ten broad categories such as 'fact expression', 'feeling expression', 'directives' and 'acknowledgments'. Although these categories did not appear to be clearly defined, Johnson claims that,

> 'the categories were found to be mutually exclusive and could be reliably (85.2%) applied by trained raters. Eighteen senior nursing students were observed for 4, 20-minute periods each time with the same patient. Observations were of the non-participant type and were done by psychology students who had intensive training for this task'.

Each set of recorded data were judged by two psychiatric nurse experts on the basis of the degree of therapeutic behaviour indicated by the nurses' verbal interactions. The two judges had a 78% agreement on the placement of students into categories of either high or low therapeutic behaviour. The relationship between the high and low ratings and categories of verbal behaviour was then explored.

Johnson found that 'high' students used significantly more of the categories of verbal behaviour than 'low' students - that is they had a larger repertoire of verbal behaviour. Highly rated students focussed more on the patient and also paid significantly more attention to patients' feelings. In spite of these interesting findings this study has some methodological flaws. The most serious, perhaps, is the way in which data were recorded. Verbal interaction was 'recorded' by observers who listened to conversations and then wrote the content of these down. This method is likely to be inaccurate, particularly when the recordings were made over 20 minute periods. Indeed Johnson herself says "these observers recorded mainly all (sic) of the verbal utterances of both the student and the patient" , p 340.

Other researchers in the U.S. have concentrated on interaction between nurses and psychiatric patients. Perhaps the best known of these are Hays and Larson (1963) who constructed a classification scheme for techniques in psychotherapeutic interviewing. This classification is concerned with nurses' verbal behaviour and falls into two parts - therapeutic techniques and non-therapeutic techniques. Hays and Larson maintain that the therapeutic techniques they list are those elements of verbal behaviour which contribute to the patients' emotional growth or recovery. Such techniques include reflection; using silence, giving information, clarifying and using general leads. Non-therapeutic techniques are those which, they claim, reinforce a patient's illness and include using cliches, changing the subject, giving advice, requesting and explanation and agreeing with the patient. The classification scheme comprises a total of 44 behaviours and these are listed in full in Appendix 1(a). This scheme is perhaps the most widely known in psychiatric nursing. It has been used both in its entirety and in adapted forms as the basis for teaching interpersonal skills to nurses in both the U.S.A. and the U.K. As discussed previously, it has also been adapted for use in research

into doctor patient interaction (Byrne and Long , 1974). However, there is no evidence of any attempts by Hays and Larson to test or validate the items in their classification scheme. Indeed it is not made clear precisely how the items were originally derived. Hays and Larson themselves recognise some of the limitations of their system and say,

> ". . . the list of interpersonal techniques described herein is not meant to be exhaustive. Certainly other categories could be added that would be of equal value. Nor should the techniques themselves be overvalued" (Hays and Larson, 1963, p 3).

The list of behaviours is comprehensive and, as such is of great potential value to teachers and researchers. The major problem, however, is their implicit assumption that the behaviours labelled as 'therapeutic' are indeed therapeutic or desirable and that those labelled 'non-therapeutic' are undesirable.

A further system of classifying nurse-patient verbal interactions was devised by Topf (1969). This system was designed for the purpose of evaluating and assessing communication skills in psychiatric nursing students in the U. S.A. Topf produced a 'communication skills checklist' which is even more exhaustive than that of Hays and Larson. Over 80 items of behaviour are listed (see Appendix 1(b)) divided into 'ineffective behaviour' and 'effective behaviour'. The list is organised around 8 major headings that categorise the groups of behaviour likely to occur during student-patient interactions. These headings include initiating the interaction, questioning, listening, problem solving and evaluation of the interaction. Ineffective behaviour is defined as "responses that usually inhibit the communication process", while effective behaviour "usually facilitates the communication process". All the items were derived from Topf's experience and from text books (p 29). Topf used the checklist to evaluate process records and tape recordings of students' conversations with patients. Each student was given a score, obtained by deducting the total number of instances of ineffective behaviour noted from the total amount of effective behaviour. Topf claims that the checklist provided

a general indication of student abilities and a general picture of student progress. No details are given about the coding procedure involved although the number of items in the classification scheme would mean that trained or experienced coders would be essential. However, while Topf's work can also be criticised in terms of assumptions made and research methodology used, it does also provide a comprehensive list of types of behaviour which are potentially relevant to the process of analysing nurse-patient verbal interaction.

A somewhat different approach to the analysis of nurse-patient interaction has been taken by a group of researchers based at Wayne State University, U.S.A. (Diers and Leonard 1966 and Diers and Schmidt 1977). These researchers worked for over a decade on the development of a classification scheme called the 'nurse-orientation system', (N.O.S.). This is intended as a tool for analysing and quantifying dialogue between nurses and patients. The sytem is derived from a theoretical perspective related to the way in which a nurse is oriented, or the focus of her orientation. It is argued that a nurse can be oriented to a person (the patient, herself or others) or to an object. The 10 categories of N.O.S. are that of object orientation, patient orientation (feeling, knowing or doing) nurse orientation (feeling, knowing or doing) and other orientation (feeling, knowing or doing). Thus the 4 main categories relate to the possible foci of attention while the minor categories relate to the specific dimensions of any orientation.

The theoretical perspective taken by Diers et al is eclectic The concept of orientation is abstracted from ' communication theory' and it is argued that nurses and patients communicate because of actual or anticipated needs related to the patient's health. In addition they state that the label of 'nurse' and 'patient' clearly identify the roles and relative power held by each. Orientation is thus the perceptual stance taken by one actor towards the other .

The coding unit used in this categorisation system is the complete utterance or turn. This system has been subjected to vigorous reliability testing reported by Diers and Schmidt (1977) when it was found that two coders were able to reach a high level of agreement. Before training, agreement between coders was approximately 50%. After training this increased to over 70%

The validity of this system has also been tested to some extent by using the categories in predictive studies. For example, McBride (1967) defined three different nursing approaches using N.O.S. In all three groups the nurse was free to give any physical care she felt was necessary but the verbal interactions of the nurses were modified. It was hypothesised that patients who received nursing interaction which was oriented to them as physical, cognitive, and emotion feeling persons would experience more pain relief that patients who were viewed as only cognitive and physical feeling persons or purely physical feeling persons. Thirty surgical patients who complained of pain were randomly assigned to one of the three treatment groups. Medication was given and the nurse spent about 15 minutes talking to the patient, using the verbal approach assigned.

Patients' pulse and respiration rates were measured before, immediately after and one hour after the interaction. Judgements of verbal and non-verbal behaviour on a three point scale - 'worse', 'better', or 'the same' were also made at similar times. Pulse rates did not change significantly although there was a trend towards greater decrease in rates after verbal interaction involving feeling orientation. Non-verbal behaviour ratings were significantly different between the three groups, with greatest improvement being shown in the 'feeling' assigned interactions. Patients' verbal statements about improved pain relief were not shown to differ significantly between the three treatment groups.

Although Diers and Schmidt (1977) claim that McBride's study and other work supports the validity of their categorisation scheme (N.O.S.) many serious questions remain about both the validity and reliability of the system. While the categories appear sophisticated, they are also complex and vague. It is not immediately clear what, for example, a category such as "nurse-orientation - knowing, thinking, evaluating" means in terms of actual verbal interaction. N.O.S. is not a system which could be readily used by nurse practitioners or teachers without specific training. Moreover, as Diers and Schmidt admit, extensive training is required before good inter-coder agreement is reached. The attempts to establish validity can also be criticised on methodological grounds. In reported studies where N.O.S. has been used predictively, the nurse researcher involved interacted with the patients, took the physiological measurements, and assessed the patients' non-verbal behaviour. Given that the nurse knew the group assignment and hypothesis of the study, the data are likely to be heavily biased. More fundamentally, it seems that the concepts underlying N.O.S. are difficult to define and in consequence very difficult for nurses to put into practice through varying their verbal interactions with patients. As such the systems may not be amenable to systematic assessment.

An attempt to present more precise definitions of communication skill and behaviour in nursing was made by the American researchers Reiter and Kakosh (1963). This formed part of an extensive study designed to establish criteria for quality in nursing care. Forty verbatim conversations between nurses and patients having bed baths were recorded. Excerpts were extracted, analysed,and nurses' behaviour was classified into three major areas. These were encouraging patient verbalisation, rejecting patient's feelings and nurse-socialising. As a result of these findings the researchers produced a framework of 'skilled behaviour' in relation to the speaking, listening and observing elements of communication.

Criteria were then proposed for three levels of communication in nursing - elementary, technical and professional. By their own admission Reiter and Kakosh recognise that their proposals are "limited and unrefined" (p 78) but they do represent a comprehensive descriptive framework for American nursing. However, there seems to be no evidence of any subsequent attempt to use this framework for the analysis of nurse- patient interactions in the U.S.

Other researchers have also used 'real-life' incidents as the basis for devising an analysis framework. Graffam (1970) studied nurses' responses to patients who were distressed. Seventy-five trained nurses were observed responding to 157 distressed patients. The researcher followed one nurse at a time and recorded any observed incident involving a distressed patient. A complex analysis framework was devised to enable immediate classification of all events which occurred subsequently, in relation to the distress episode. Each episode was coded according to the type of distress, initiation of complaint, people involved, response to complaint, referral, implementation of relief measures, use of psychological measures and evaluation of measures taken by the nurse concerned. Graffam established high levels of inter-rater reliability in spite of the fact that the framework consists of four foolscap pages. However, she reports practical problems in the use of this method - problems associated with nurses' reactions to the research process. She found that nurses tried to avoid the observer, attempted to justify their behaviour or exaggerated their responses to patients. In view of this it must be assumed that the data collected were to some extent 'contaminated'.

A completely different approach to the analysis of verbal interaction data has been taken by Mood and Lick (1979) and Mood and Lakin (1979). The emphasis in these studies was upon the relationship between certain attitudes held by nurses and the content of the interviews between these nurses and a researcher. These verbal interaction data were examined in order to identify linguistic indicators of avoidance and denial in these conversations. The methodology used

was similar to the content analysis method of word-counting described in the first section of this chapter. Mood and Lick (1979) analysed transcribed interviews in which nurses described their attitudes to nursing terminally ill patients. The data were coded according to whether they were "death related" or "non-death related" and then all negative lexical forms were counted. The proportion of negatives to total number of words was calculated and it was found that significantly more negatives were used in death related interactions. The study by Mood and Lakin was very similar but in this the word count was related to the use of the impersonal pronoun 'it' when nurses were describing their feelings about caring for the terminally ill. Once again it was found that the impersonal pronoun was used significantly more frequently when subjects described patients', relatives' or nurses' reactions to death than when describing purely physical care.

These studies present an interesting use of content analysis in nursing research. It is appreciated that the data were not nurse-patient interactions but merely descriptions of nurses' feelings and attitudes to aspects of care. However, these methods would seem to have potential for use in the analysis of actual nurse-patient interaction data.

As discussed in chapter 2, very little work has been undertaken in the U.K. on the analysis of nurse-patient verbal interactions. The best researched area has been that of psychiatry and mental handicap (Altschul 1972; Paton and Stirling 1974; Moores and Grant 1976; Macilwaine 1980). These studies have been described in detail in chapter 2, p 39-46 and, as was discussed then, their relevance to the present research is much limited by the context. Interactions between psychiatric patients and their nurses and between mentally handicapped patients and their nurses will differ fundamentally from those which may take place between surgical patients and nurses. However, the methods used in these studies are important. For example, Moores and Grant (1976) highlighted

the problems of on-the-spot coding of verbal interaction data, while Macilwaine demonstrated the potential of the radio-microphone for use in the collection of verbal interaction data.

In the area of general nursing, the work of Faulkner (1980) is perhaps the most relevant. In one part of a study which attempted to determine the student nurse's role in giving information to patients, Faulkner also used a radio-microphone to collect data on conversations occurring between nurses and patients on general medical wards. These data were selectively analysed, with the researcher identifying all incidents which involved either a patient's request for information, or information or some form of health education being given. Patients' questions were coded according to whether they were specific, implied or vague and nurses responses to such questions were coded according to whether they were true, misleading, vague or not responded to. Instances of requests or instructions were coded, as were the responses to such requests, according to whether they were accepted, rejected or not responded to. Instances of reassurance, offering information and non-sequitors were also coded. An overall category was given to the content of each incident, according to whether it was social, task or disease oriented.

Faulkner's findings were most interesting, showing that conversation was predominantly task oriented and that the most frequently coded behaviours were those of instructions or requests with their subsequent response. Very few instances were identified of nurses giving patients information or fulfilling a health education role. It was felt that Faulkner's method of collecting data and observing nurse-patient interactions may have potential for use in surgical wards. However, the selective nature of transcriptions and analysis may have serious limitations. Moreover Faulkner did not use any additional coders in her study and in consequence it is not possible to say how "reliable" the method of analysis may have been.

The studies reviewed above have examined or analysed some aspects of nurse-patient verbal interactions. While each has made some contribution to the area, their relevance to the current research is limited. The approach taken by researchers such as Reiter and Kakosh (1963) was thought to be promising in that it was generated from an examination of real nurse-patient conversation. However, such studies are inevitably culture bound and should not be 'borrowed' for use in the U.K. The studies offering the most potential in terms of analysing nurse-patient verbal interactions are those in which many well defined categories of verbal behaviour have been identified (Hays and Larson 1963 and Topf 1969) and those undertaken on general wards in the U.K. The methods used in the study by Faulkner (1980) involving some analysis of tape recorded nurse-patient conversations on a general medical ward are felt to have particular relevance to the current research.

3.6 Summary

Throughout this chapter several different approaches to the use of interaction analysis techniques have been explored. Many studies have been undertaken by researchers working in a variety of fields such as classroom research, research into doctor patient interaction, group dynamics and nurse-patient interaction. The methods used in the studies described provide a valuable insight into the benefits and problems associated with interaction analysis techniques.

The data collection methods involving audio and videotape recordings of interactions are of particular interest. Such work was pioneered by researchers concerned with the analysis of pupil-teacher interaction (Bellack et al 1966; Barnes 1969) and doctor-patient or psychiatric-patient interaction (Scheflen 1973; Byrne and Long 1976; Coulthard and Ashby 1976).

The review of interaction analysis literature has revealed a wide variety of approaches. Some attempts have been made to produce categorisation schema which are exhaustive, where provision it made for every possible verbal event. Such schemes may have a few broad categories (Bales 1950) or very many narrow categories (Candlin et al, 1976). Both of these approaches have problems, the former in that pushing data into broad categories means that much information is lost. On the other hand, the latter system, which has large numbers of categories, always presents problems related to coder training and inter-coder reliability. An alternative approach is to produce a comprehensive but not necessarily exhaustive list of behaviours related to certain events or procedures (Topf 1969; Bain 1976). The result is a framework which can be used for examining specific elements of interaction behaviour in great detail.

While the research described in this chapter has given valuable insight into the use of interaction analysis techniques it was felt that none of the systems or categorisation schema were entirely appropriate for use in the analysis of nurse-patient interaction. Although such systems may illuminate certain aspects of nurse-patient interaction, an analysis framework designed specifically for nurse-patient conversations may be more productive. As Diers and Leonard (1966) say ;

> " ... categories constructed with a nursing situation in mind will be more likely to tap relevant dimensions of the interaction"

and

> ".. would produce findings more relevant to nursing theory and practice" (p 228).

Some studies have been undertaken which have attempted to specifically analyse nurse-patient interaction. Of these, the work of Hays and Larson (1963) and Topf (1969) would appear to be most promising for the analysis of nurse-patient conversations on surgical wards. These studies have at least one thing in common - that is

they allow for the meticulous examination of selected aspects of verbal behaviour. It was decided, therefore, to attempt, in the first instance, to apply these two schema to the data collected in this study. This was felt to be preferable to the alternative of developing a completely new framework. As Holsti (1968) says;

> "The advantages of standarisation (of categories) are the same as in any area of scholarship: results may be compared across studies and findings will tend to become cumulative. On the other hand the disparity of purpose which characterizes content analysis research makes standardisation difficult to achieve." Holsti (1968 p 645).

CHAPTER 4

EXPLORATORY WORK

CHAPTER OUTLINE

4.1 Participant observation

a) Choice of ward

b) Participant observer role versus nurse role

c) First impressions

4.2 The development and testing of methods for collecting nurse-patient verbal interaction data.

a) Tailing, eavesdropping and lurking

b) Recall of individual's own interactions

c) Use of recording equipment-audio and video

4.3 Practical and ethical considerations

a) Access

b) Ethics

CHAPTER 4

EXPLORATORY WORK

As discussed in chapters two and three there is a paucity of previous research which has examined nurse-patient communication in the context of general surgical wards. Moreover, few studies have explored in detail the content and mechanisms of nurse-patient verbal interaction. It was, therefore, essential that the early stages of the research described in this thesis incorporated careful exploratory work.

The focus of this study was the analysis of actual examples of the kinds of nurse-patient verbal interactions which occur on general surgical wards. The first step was, therefore, for the researcher to spend time on a general surgical ward. In this chapter the exploratory work undertaken is described under the following headings - participant observation, development and testing of methods for collecting nurse-patient conversation data and practical and ethical issues.

4.1 Participant observation

The aim at this stage of the study was to gain an overall picture of the nature of verbal interactions which occurred between nurses and patients and to gain some insight into nurses' approaches to the 'communication'aspects of nursing care. In addition it was hoped to establish which methods would be most appropriate for collecting actual examples of nurse-patient conversation in the main study. The method chosen to achieve these aims was that of participant observation. Participant observation has been shown to be an appropriate research method to use when undertaking exploratory work (Pearsall 1965) and was felt to be particularly suited to the needs of this study. In nursing research, where the researcher is herself a nurse, the method enables valuable subjective observations to be combined, in a flexible manner, with the use of professional skills and knowledge. It was decided

therefore that the researcher would work as a supernumerary and unpaid staff nurse on a general surgical ward for a period of three months.

a) Choice of ward: As the role of participant observer would involve undertaking conventional nursing shift duties an easily accessible district general hospital was the ideal choice. The appropriate senior nursing administrator of a large outer-London District general hospital (approximately 500 beds) was approached and it was agreed that the researcher would work as a supernumery staff nurse on a general surgical ward and that the shift times were to be arranged with the ward sister. One particular ward sister showed a special interest in the project and offered to 'host' the researcher. Her ward comprised one of two adjacent 30-bed units, each divided into five partitioned sections each with six beds. Although a predominantly male surgical ward, female patients were often admitted to one of the partitioned sections at the end of the ward. Similarly, the adjacent ward, although predominantly female surgical, occasionally catered for male patients. The two wards were, in theory, run separately but in practice the sisters and all the staff worked closely together, sharing resources when necessary. The researcher was based in the male surgical ward and in order to get as representative a picture as possible, worked early, late and split shifts in addition to undertaking an intermittent night duty shift. About two-thirds of the period of participant observation was spent in the predominantly male surgical ward and the other third of the time in the female surgical ward.

b) Participant observer role versus nurse role: Many researchers have written about the use of participant observation as a research method and the problems of role conflict which may arise. Several have suggested that the role a participant observer adopts will

always lie somewhere along a continuum between complete observation and complete participation (Schwartz and Schwartz 1955; Gold 1958; Pearsall 1965). When the researcher's participatory role is that of a nurse, then the tendency is to be more consistently at the participatory end of the continuum (Pepper 1977). This in fact was the case during this exploratory work as, when the ward was busy, the observer role, although continuing incidentally, was subsumed to the role of nurse. The researcher took part in all nursing activities but, by specific arrangement with the ward sister, was never 'in charge' for the entire shift as it was felt that the responsibility of running the ward would have made any 'observation' impossible. All the staff on the wards were aware that the researcher was supernumerary and were also informed that the research topic was communication. They were not, however, specifically told about the researcher's interest in actual nurse-patient conversations as this may have substantially altered their behaviour. The researcher's role as an extra member of staff appeared to be acceptable to all the nurses - especially perhaps as the wards were sometimes very busy and under-staffed. Every opportunity was taken for observing and listening to any dyadic (one-to-one) nurse-patient verbal interaction, paying particular attention to the context and content.

c) First impressions: The researcher talked to all the nurses working on the wards about different aspects of nursing and nurse-training. Without exception they appeared to believe that 'communication' was important though many expressed the view that it involved skills which are inherent rather than acquired. The importance of 'talking to patients', "finding out about their worries' and 'giving information' were also spontaneously mentioned by nurses. However, in spite of these stated beliefs it became clear that in reality the nurses on the ward did not in fact seem to spend much time talking to patients. Most interactions appeared to be very short and the topic of such conversations was often limited to the nursing activity currently taking place. When more than one

nurse was caring for a patient the nurses were often observed to talk to each other rather than to the patient (although patients sometimes joined in). Superficial banter and 'jollying-along' was often observed. Patients were occasionally given information about procedures taking place or in response to having asked a direct question. However the researcher was not able to identify or observe any instance of a nurse trying to "find out about a patient's worries". It had been anticipated that nurses might converse more easily with patients during the night duty period. However in practice, during the nights observed by the researcher, conversations between nurses and patients were again short and task-related. One or two insomniac patients did interact at length with nurses but these conversations were 'social' and the emphasis tended to be upon the nurse's interests and activities.

It was recognised that at this stage such deductions were being made simply on the basis of observed or overheardconversations and field notes. It was, therefore, felt essential to try to develop some more objective, systematic and accurate method for collecting data on the actual content of nurse-patient verbal interaction.

4.2 Development and testing of methods for collecting nurse-patient verbal interaction data

There are several different ways in which it is possible to collect verbal interaction data and during the courseof the exploratory work the following three alternatives which have been used by previous investigators in this field were explored:

a) Tailing, eavesdropping or lurking in conjunction with handwritten observer notes or records.

b) Recall of individual's own interactions and conversations.

c) Use of recording equipment - audio and video.

a) Tailing, eavesdropping or lurking in conjunction with handwritten observer notes or records of conversations: This is a method which has been used by previous researchers (Fish 1966, McIntosh 1977) who have examined aspects of communication in a hospital setting. McIntosh, for example, acted as a participant observer, observing the processes of communication, information seeking and control which occurred on wards between the staff and patients with a diagnosis of cancer. His data were derived from, amongst other things, 'overheard' conversations between staff and patients. Many of these were listened to from a 'lurking' position on the other side of the screens. McIntosh claims that, although a useful method of collecting data, it is very stressful. This was also the present researcher's experience. Many attempts were made to listen to and make notes on other nurses' conversations with patients by remaining as unobtrusive as possible.

The problems which emerged were threefold. Firstly, the role of eavesdropper is an uncomfortable and undesirable one. Secondly, when an attempt was made to become less of an eavesdropper and more of a detatched observer, although this was found to be more acceptable it became impossible to make notes of the content of the conversations at the time they were occurring without making the interactors very self-conscious. The third problem is related to the practicalities of the pencil and paper method of recording verbal interaction. While the pencil and paper method, involving either the use of checklists or a verbatim commentary is very simple in terms of the apparatus employed, the big disadvantage is that the range of behaviours and the speed with which they can be recorded are very restricted. Writing almost invariably requires one to look down, at least from time to time, and thus look away from what is being observed. It is significant perhaps that previous researchers like Fish (1966) and McIntosh (1977) were not concerned with the actual detailed content of conversation and may, therefore, have been able to recall enough data from rudimentary notes.

In view of these problems, the possibility was therefore considered for the proposed research of using a pre-coded sheet and pre-determined categories, e.g. checklists, into which to fit aspects

of the nurse-patient conversations. This method also raises problems of reliability. When observing and recording pre-coded data it is necessary to ensure that an acceptable degree of consistency can be obtained from at least two coders, coding the same material. The method, therefore, involves the use of an additional research assistant. However, as has been discussed previously, the absence of accurate empirical data on the possible content of dyadic nurse-patient interaction made it illogical to construct pre-determined categories. In addition, the paper and pencil method of collecting conversation data still requires a degree of physical proximity between researcher and subjects. It is not possible to get an accurate record of the contents of interactions unless close enough to hear. The implications of this were felt to be unacceptable - it would involve following the nurse around and eavesdropping on all conversations while simultaneously maintaining written records. It would also have meant that many short interactions were completely missed.

b) Recall of individual's own interactions and conversations with patients: During the period of participant observation the focus of the researcher's interest was directed upon the actual conversations that took place between nurses and patients. A perhaps inevitable result of this was that the researcher became increasingly aware of the content of her own conversations with patients. An attempt was therefore made to write down retrospectively the content of such conversations with patients and to make notes of anything which seemed relevant. This attempt to make retrospective notes of conversations was most interesting. Firstly, it was found that in practice it is difficult to remember in any precise way the detailed content of conversations, even quite soon after it takes place. It is certainly easy to remember the 'gist' of the conversation and even some of the exchanges but almost impossible to remember verbatim exchanges. This is obviously especially problematic in the context of nursing, when it is not usually feasible to interrupt a procedure or task in order to record the verbal content. However it was felt necessary to explore the

the possibility that this inability to remember specific content was only a function of the researcher's own inadequacy, particularly as it has been claimed by Macilwaine (1978) that the teaching method of 'process recording' is a useful means of helping nurses learn skills in communication in psychiatric nursing. Process recording involves remembering the development and content of a conversation and this clearly implies that it may be a feasible task.

In order to assess the extent to which the content of conversations could be recalled, three other nurses on the ward were asked to try to remember, write down as accurately as possible and report back to the researcher one conversation that they had had with a patient . The patient chosen was an eccentric old lady who had been in hospital for some time and who was 'famous' for her bizarre and amusing remarks. She required a great deal of nursing care and the nurses were therefore constantly in contact with her. As an exercise, this was much enjoyed by the nurses. They were able to remember the outline, the topics and the course the conversation took but they all found it very difficult to remember the precise content of their conversation in terms of the actual words used. Interestingly, they found it especially difficult to remember their own contribution to such conversations. While these findings in no way negate the use of this approach for examining or teaching communication between nurses and patients, it was felt that recall would not be a suitable method for the analysis of actual verbal interaction data. In view of this it was decided to explore the use of technical aids for collecting verbal interaction data.

c) The use of recording equipment: The initial explorations in this area were conducted with the aid of a standard portable cassette tape recorder. This type of recording method has been used by other researchers (Byrne and Long 1976; Hughes 1978) who have recorded interactions between doctors and patients. In this study, an attempt was made to record nurse-patient conversations

by;
(i) leaving the tape recorder and microphone on the patient's locker, and
(ii) having the researcher position a microphone on a long lead appropriately during the course of a conversation between nurse and patient.
Method (i) produced unacceptably poor recordings owing to the amount of movement, noise and static generated during most nursing activities. Method (ii) induced self-consciousness in all participants and also gave poor recordings. It is significant perhaps that where such recording equipment has been used previously the focus has been the more restricted, quieter and predictable environment of general practitioner's surgeries or consultant's clinics. Other nurse researchers have also experienced difficulties with conventional tape recording equipment (Diers and Schmidt 1977; Faulkner 1979) and in both cases they resorted to the use of radio-microphone equipment.

The advice of an electronics engineer was sought and radio-microphone equipment was obtained on loan and tested by the researcher on the ward. After some trial and error it was found that the following combination of equipment could be used to provide excellent recordings of nurse-patient conversations given the right circumstances. The equipment involved was a Sony tape cassette recorder (TC-1355D) which could be run off the mains, a radio receiver (Audio 174.5) also mains powered, transformer and VHF transmitter (Audio 174.5) and Sony tie clip microphone (see Fig 1). The transmitter could be carried unobtrusively in the nurse's pocket and the microphone clipped to a suitable part of the uniform dress or apron. The equipment worn by the nurse was thus unobtrusive and comfortable and the cassette recorder and radio-receiver could be positioned far away from the nurse being recorded and most importantly, could be plugged into the mains.

FIGURE I

THE RADIOMICROPHONE IN USE

'tieclip' microphone

However, it was discovered that the lay-out of the wards in which the exploratory work was taking place presented practical problems. The 6-bedded bays had partitions around them and the quality of recording varied according to how many partitions there were between the radio-receiver and the nurse being recorded. In addition the presence of partitions meant that the observer could not remain static and in contact with the machinery all the time but had to follow the movements of the nurse being recorded. The equipment was, therefore, tried in a ward of the Nightingale design - 24 beds with cubicles and offices at one end and sluice, treatment room, etc., at the other. This lay-out was found to be ideal. The researcher could sit at one end with the equipment and recording quality was unimpeded.

It was felt, therefore, that the use of this sophisticated radio-microphone equipment would ensure high calibre recordings of a complete range of dyadic nurse-patient verbal interactions. In addition this kind of recorded data would facilitate post-hoc analysis and categorisation of the material - a very important factor. However, the limitations of this method were recognised. Firstly, it would be very dependent upon the co-operation of the nurses and patients who would be tape-recorded. Secondly, it would not be possible to collect any information about visual or non-verbal cues and information about initiation, context, etc., in circumstances where the nurses and patients were (say) behind screens, in a cubicle, in x-ray, or simply beyond the researcher's range of vision.

In view of this, an attempt was made to obtain video-tape recordings of nurse-patient interactions. A portable video-camera, which could be used in the hand or on a tripod and a recorder was borrowed and attempts were made to record random nursing activities. The practical problems of using this equipment became very apparent. Although good visual recordings were made, difficulties with the integral microphone on the camera resulted in inadequate sound recordings. This was improved by using the video-camera

in combination with the radio-microphone equipment. However, the most serious difficulty was felt to be the level of intrusiveness arising from the use of the video-camera. This intrusion took the form of a need for space, adequate lighting, the researcher's constant presence whilst recording and the large numbers of wires and cables and pieces of equipment. The practical outcome of this was the recognition that it would not be possible to collect data in the form of a comprehensive overview of a nurse-patient interaction using a video-camera. Once the equipment was set up and working in one position, excellent quality recordings could be obtained but this did not allow for the collection of representative data. It was decided therefore to delay the use of video-recording until after the main data collection process.

The use of audio-visual techniques for data collection does mean that permanent records can be kept of 'live' data and such an approach allows for post-hoc description and analysis of interactions. At the same time it is essential to have an on-site observer to ensure that important contextual data are not lost. This combination of audio-visual recordings and on-site observer has been used successfully in classroom research (Stubbs 1976). The method of choice for the collection of nurse-patient verbal interaction in the main study was thus felt to be non-participant observation combined with the use of a radio-microphone and cassette tape recorder. In this way the non-participant observation could be conducted from a central position in the ward, where all the nurse's interactions could be timed, monitored and noted and the context of the activities and interactions could be observed.

4.3 Practical and ethical considerations

a) Access : In view of the experiences during the exploratory phase of this research project it was clearly neccesary to obtain access to surgical wards in which it would be possible to use the recording

equipment. This involved locating a hospital with male and female surgical wards of the Nightingale design. An approach was made to the Divisional Nursing Officer of the suburban branch of a large teaching hospital with a view to gaining access to collect data on nurse-patient interactions. This approach met with an enthusiastic response and arrangements were then made to meet the Senior Nursing Officer (S.N.O.) in charge of the surgical wards to discuss the project. She was, initially, somewhat apprehensive about the prospect of anyone doing research on the wards but after a lengthy discussion she became interested and showed the investigator the surgical wards in the hospital. Many of these were particularly suited to the research as they were 24-bedded wards with two cubicles, a day room and bathrooms at one end, and all the offices, treatment room and sluice at the other end. There was also, in each ward, a small area at the top of the ward where notes and equipment were kept, which had shelves and electric points. This made an ideal base from which the researcher could record and observe.

The S.N.O, was asked to identify two wards (one male and one female which she felt were typical and which catered for a variety of general surgical patients. The two ward sisters concerned were approached and the project was explained to them and the equipment demonstrated. Both were interested and offered the facilities of their wards. Arrangements were made for the researcher to begin visiting the wards at regular intervals to talk with all the staff who would be involved.

b) Ethics: Ethical guidelines for nursing research have been set down in a R.C.N.(+) document (R.C.N. 1977). However, the ethical implications of each research project must be assessed individually. Even when ethical committee approval has been obtained for the use of audio and video-tape when recording nurse-patient interactions, as in this study, the researcher must always take ultimate responsibility for the conduct of the research. This was felt to be especially true given the context of the research method being used

(+) R.C.N. - Royal College of Nursing

for the data collection process in this tudy. Most social research tends to involve some intrusion or invasion of privacy. In this particular research project the nurses were to be asked to wear a microphone for a certain period which would mean that everything they and the patients said would be recorded. In addition the content of conversations with other nurses and with patients would be recorded. Thus while the data were being collected, everyone on the ward would be vulnerable. The extent of the intrusion being planned was not underestimated. The only way to approach a problem of this magnitude is to tell everyone who may be concerned, exactly what is involved and give them the choice of participating. This was done in all instances by talking to all the staff on the ward, visiting colleagues and medical staff and by approaching all the patients. All participants were assured of complete anonymity and confidentiality. Nurses and patients involved in the study would be identified by code number only.

Three nurses declined to wear a microphone, although they did not object to others doing so, while they were on the wards. Each nurse who agreed to be recorded was asked to sign a consent form (Appendix 2(a)). During the data collection period the project was explained to all the patients and a standard letter was prepared (Appendix 2(b)). However, the moral dilemma remained in so far as it seemed apparent that a good proportion of the patients did not really understand the project, even though many were very interested. Attempts to make sure they did understand usually ended in increased bafflement. No patient (or relative) refused to co-operate. The apparently consistent desire of patients to be helpful and co-operate in any way during their stay in hospital presents a real ethical problem (Faulkner 1979). The researcher therefore has a responsibility to ensure that this trust is not manipulated and that commitments to confidentiality and anonymity are maintained.

Summary

The exploratory work undertaken in this study revealed that a radio-microphone was the most appropriate method for the recording of nurse-patient verbal interactions. This equipment had been tested and access was successfully negotiated to male and female surgical wards of a large London hospital. The data collection process is described in the following chapter.

CHAPTER 5

DATA COLLECTION

CHAPTER OUTLINE

5.1 Data Sample A - The Context

- a) The Hospital and the Wards
- b) The Patients
- c) The Nurses

5.2 Data Sample A - Pilot work using an audio-tape recorder.

- a) Method
- b) Recording sessions
- c) Transcribing and analysing the pilot tapes

5.3 Data Sample A - Collecting data using an audio-tape recorder.

- a) Consent
- b) Recording sessions
- c) Data collection framework
- d) Transcription

5.4 Data Sample B - The Context

- a) The Hospitals and Wards
- b) The Patients
- c) The Nurses

5.5 Data Sample B - Collecting data using a videotape recorder.

- a) Consent
- b) Data collection process
- c) Transcription

CHAPTER 5

DATA COLLECTION - THE COLLECTION OF RECORDED NURSE-PATIENT VERBAL INTERACTION DATA FROM SELECTED SURGICAL WARDS

As discussed previously, the aim of this stage of the study was to collect data in the form of examples of 'typical' conversations which occurred between nurses and patients in selected surgical wards. These data were to be used as a basis for the development of a framework which would facilitate the detailed analysis of such conversations.

The chapter begins with a description of the wards, staff and patients involved in the collection of audio-tape recorded data. The pilot work on data collection and analysis methods used in the audio-tape recording process is then outlined. The procedures subsequently used for collection of a sample of audio-tape recorded data for the main study are also described. This is followed by a description of the sample involved and the methods used to collect case-study material in the form of video-taped recordings of nurse-patient interactions.

5.1 Data Sample A - The Context

a) The Hospital and the Wards

As described in the previous chapter, access was negotiated to a large urban hospital (hospital 1). Two general surgical wards within the hospital were selected for study - Ward A (male surgical) and Ward B (female surgical). The wards were selected on the basis of the senior nursing officer's subjective rating of them as 'typical' and in terms of the type of surgery undertaken by the surgeons using these wards. The range of surgical conditions found and surgical procedures undertaken was very varied. Several consultants visited each of the two wards on a regular basis. In view of the small sample of wards being

used for the collection of the data the researcher felt it important to ascertain, using a stable variable, whether these wards were indeed 'typical'. The discharge figures for the Health District in which the research was carried out were examined in order to compare the age distribution of patients on these two wards with those of all other similar surgical wards in the District (H.A.A. 1979). It can be seen from Appendix 3 (a), that the age distribution of patients discharged from the two study wards over a one year period was very similar to that of other surgical wards in the District.

Both of the selected wards were of similar 'Nightingale' design with 26 beds - 12 on each side of the ward and 2 cubicles in the corridor at the entrance to the ward itself. The sister of each ward was asked how the work was organised and both said that their wards were run on a 'team nursing' principle - with certain nurses being allocated to each side of the ward. However, in practice much of the work appeared to be task allocated - with all TPRs (+) and dressings being done by particular nurses, irrespective of the patient's position in the ward.

b) The Patients

The patients in these wards were predominantly 'local' people. The area was a white working class suburb of a large city and this fact is reflected in the social class distribution of the patients on the wards during the periods when data were being collected. This distribution is shown in Appendix 3(b), with the majority of patients falling into social class III or IV (OPCS 1970).

(+) TPR - Temperature, pulse and respiration readings.

The age distribution of patients in Wards A and B is shown in Appendix 3(c). A substantial proportion of patients were aged 60 years and over. This age distribution is also in line with the national picture on hospital wards where it has been shown that the average age of patients has been increasing steadily in recent years (DHSS 1978). As discussed, the range of surgical conditions found and surgical procedures carried out on the patients was very varied. Several consultants visited each of the two wards including a urologist, vascular surgeon, three general surgeons and an orthopaedic surgeon.

c) The Nurses

Ward staff included qualified SRNs and SENs, student nurses, pupil nurses and nursing auxiliaries. During daytime shifts there was almost always at least one trained nurse, several students and/or pupils and an auxiliary nurse on duty. Night duty shifts were less well staffed - generally one trained nurse and one student or auxiliary nurse would be on duty each night. During the period of the study the trained staff on the wards remained the same. There was, however, an inevitable high turnover of student nurses and pupil nurses.

5.2 Data Sample A - Pilot work using an audio-tape recorder

a) Method: Six weeks were spent on each of the two wards (A and B) during the pilot work period, getting to know the staff and patients, testing the equipment, collecting tape-recordings and using the observation schedule. It was found that nurses were able to tolerate the equipment and recording process and that patients were not disturbed by the research activity. The consent of all concerned was obtained and anonymity assured.

* The researcher spent approximately four hours in the ward each day and undertook one recording session during that time. These sessions occurred in one of three time periods: 7.45 am - 12.45 pm; 12.45 pm - 5.45pm or 5.45pm until 'lights out' (usually about 11 pm). A trained nurse and a student nurse were recorded on alternate days - one volunteer taken from those on duty during the appropriate time period. Nurses were told that the researcher wished to record examples of nurses undertaking 'typical' nursing activities. A total of 18 recording sessions were undertaken on each ward - three for each time period for both student nurses and staff nurses. Attempts to record and observe nurse-patient verbal interaction during night shifts were abandoned once it became clear that it was not possible to monitor the nurses' activities or whereabouts once the lights were turned out. During the recording sessions the researcher observed the nurse wearing the microphone, and made notes on an observation schedule as follows:

> The context was noted of each dyadic nurse-patient interaction occurring during the session, the patients beind identified by their bed number. Initially all observations were recorded on a strictly timed basis of one recording every 60 seconds, but this system was abandoned when it became clear that many sessions contained lengthy periods when no dyadic interactions took place. An adapted observation schedule (Appendix 3(d)) was designed and found to be appropriate. Information was later recorded and related to nurse and patient variables (eg. age, sex, diagnosis, length of stay, etc). The details were extracted from patients' records and from interviewing the nurses involved. The nurses were also asked to 'rate' the busyness of the ward during their recording session.

* Throughout the collection of audio-tape recorded data the researcher adopted the role of non-participant observer.

b) Recording Sessions: The amount of time any one nurse wore the microphone actually varied from between one hour and four hours. The shortened sessions occurred when nurses were removed from the ward for some reason, or were working with the clinical teacher or when technical recording problems arose. All recordings were made on high quality two hour tapes. There were no complaints that recording sessions were too long, although several nurses who wore the microphone for as little as one hour remarked that they had already forgotten it when it was removed. All nurses were told how to turn the microphone off themselves and instructed to do this whenever they wished - but to tell the researcher they had done so. However, there were no occasions when the nurses actually being recorded chose to turn the microphone off. This remained true throughout the whole study except that two nurses requested that it be turned off when they were undergoing a practical assessment.

While the nurse subjects were willing to be recorded for long periods of time, the researcher found that observation of the nurse was tiring and this resulted in an increased rate of observer inaccuracy. Those inaccuracies became apparent when the tapes were transcribed - and many nurse-patient conversations were found to have occurred which had not been 'observed' by the observer. These failures of observations were almost always found after 2-2$\frac{1}{2}$ hours observation and recording.

An attempt was made during the pilot work period to transcribe the tapes as near as possible in time to the actual tape recording sessions. In practice this proved impossible. Even with the best quality recordings it took an estimated four hours transcribing time for each one hour of tape recording. Each tape had to be listened to through head-phones, all nurse-patient conversations were then crosschecked with the observation schedule data and the content of nurse-patient conversations then written down by hand by the researcher. In consequence it was decided to delay

actual transcription of the tapes until after the pilot work was completed. However, during the course of this fieldwork each day's tape was listened to and a note was made of the overall content of each nurse-patient conversation in order to 'label' the data. The technical quality of the recording and any specific problems encountered were also monitored and noted.

c) Transcribing and analysing the pilot tapes: An important aim of the pilot work was to establish whether it was possible to gain data on nurse-patient conversation which would be amenable to systematic and rigorous analysis. This would require tapes of sufficiently good quality to allow for accurate transcription. The quality of tape recordings during the pilot study was in fact varied - the early tapes were plagued with technical and practical difficulties, such as the presence of static electicity on the tapes, heterodyne, inaccurate automatic gain control and inadequate fastening of the microphone. Six of the later and high quality pilot tapes were, therefore, taken at random and these were transcribed in full and typed transcripts obtained.

The review of the literature on existing analysis frameworks described in chapter 3 suggested that the work of Hays and Larson (1963) and Topf (1969) may be the most appropriate frameworks for use in this study. The researcher and one other coder attempted to categorise the nurses' responses according to one of these existing categorisation systems - that of Hays and Larson (1963). However, the Hays and Larson system presented many problems. Firstly it consists of over 40 categories which means that coders have to spend a long time 'learning' the system, although once the coders had learnt the system it did seem feasible to analyse the data using it. However, it was noticed that many of the 40 categories were not represented in the pilot transcripts. It was felt that many of these categories may be identified when working from a larger data base. Access to the main study data would therefore be required before a realistic assessment could be made

of this or any other categorisation scheme.

The pilot data collection stage had shown that good quality recordings of nurse-patient interactions could be collected, and the next stage of the research was designed to provide a representative sample of nurse-patient interactions occurring on these two general surgical wards. The pilot work showed that, in order to obtain routine and representative nurse-patient conversation audio-tape data the relationship built between the researcher and the nurse subjects is very important. The pilot data collection period had fulfilled the very important function of familiarising staff and patients with the equipment and recording process. The researcher, therefore, continued to visit the wards during the time that the pilot tapes were being transcribed and analysed to maintain this contact.

5.3 Data Sample A - Collecting data using an audio-tape recorder

The aim of the main audio-tape recorded data collection process was to acquire data which were as representative as possible of the nurse-patient conversations which occurred on the two wards.

a) Consents: All patients on the ward throughout the study were visisted by the researcher who explained the nature of the recording process. A written explanation of the project was also given to each patient (Appendix 2(b)). All patients were free to choose not to be involved but none did so - indeed many expressed a desire "to do anything to help nursing". The project was also explained to all nursing and medical staff associated with the wards. They were told that the recordings were being undertaken in order to analyse 'nurse-patient interaction'. The staff were not aware that it was the conversation content in particular which was to be examined. It was felt that knowledge of the researcher's specific

interest might seriously affect the nurses' behaviour. Written consent to taking part in the project was obtained from all nurses who were involved in recording sessions (Appendix 2(a)).

b) Recording sessions: Experience during the pilot data collection period had shown that the optimum length for a recording session was in the region of two hours. This enabled each recording session to be stored on a single 120 minute tape and for this period of time the researcher was able to maintain vigilance in her capacity as observer.

c) Data collection framework: Data were always collected during one of seven possible two hour sessions for each day of the week. These sessions covered nurse daytime shifts from 7.45 am - 9.45 pm.

Session 1	7.45 am - 9.45 am
2	9.45 am - 11.45 am
3	11.45 am - 1.45 pm
4	1.45 pm - 3.45 pm
5	3.45 pm - 5.45 pm
6	5.45 pm - 7.45 pm
7	7.45 pm - 9.45 pm

Data were not collected during night duty shifts for reasons discussed earlier. The data collection scheme was designed in order to facilitate the ultimate provision of an appropriate stratified sample of data for analysis - a sample which could be stratified over both times of day and days of the week, for both staff nurses and student nurses.

Whenever possible the radio microphone was attached to the relevant nurse approximately half an hour before the beginning of each data collection period and the recording equipment was tested. The nurses became familiar with wearing the microphone and any practical difficulties were sorted out. Once the two hour period began the researcher began to observe and record all the

nurse's movements and activities using the observation sheet (Appendix 3(d)). Particular note was made of the time of day and tape identification position of any dyadic nurse-patient interactions. A record was also made of the context in which the interaction occurred, the task (if any) being undertaken and whether there were screens around the bed, etc. Patients were identified according to the number of the bed they occupied on the wards. It was nearly always possible to keep track of the nurse's movements from one strategic position on the ward. If she 'disappeared' her whereabouts were checked and recorded. At the end of a recording session the nurse was asked,

a) how she felt about wearing the microphone;

b) if she remembered anything in particular about the previous couple of hours in terms of her dealings with patients;

c) any difficult moments or situations with patients?;

d) how busy she felt she had been, and the ward in general had been.

The researcher kept a written record of the nurse's reponses.

In addition to keeping a continuous record of the nurse's activities and interactions with patients a record was also made on the following variables for each two hour period.

1. Each nurse in the study was given a code number.
2. Her 'status' was noted, ie, how far she had progressed in her training or whether a junior or senior staff nurse.
3. Her age was noted.
4. Sister's rating of each nurse on,
   a) general nursing ability,
   b) ability to relate to the patients, was also noted.
5. A record was kept of all the patients on the ward during each two hour period - their diagnosis, bed numbers, age, social class and length of stay in hospital to date (Appendix 3(e)).
6. A record was kept of the 'busyness' of the ward during each two hour period. This was assessed at the end of each session by the nurse who had been recorded. A 1-5 scale was used, where 1 - very quiet, 2 - quiet, 3 - average, 4 - busy, 5 - very busy. In 51 out of 60 sessions the

nurse's rating agreed with the observer's rating. When disagreement occurred, the nurse's rating was recorded.

7. A record was kept of the number of nurses on duty during the two hour recording period.
8. General observation notes were also made during each session related to particular incidents or the researcher's overall impressions of the ward.

Audio-tape recording sessions took place on a total of 60 days. A sample of 56 hours of recordings was then taken from this data base to represent a complete 14 hour working 'day' for both student nurses and staff nurses on each of the wards. The sample was stratified according to time of day and day of week such that each day of the week and each two hour recording period during the day were represented equally often. Appendix 3(f) shows the framework for this stratified sample of data. Thus, using this framework a representative sample was provided of nurse-patient interaction on the wards. This sample included data collected from 22 different nurses. Eight of these were trained nurses and comprised the total population of trained nurses (not including sisters) working during the day shifts on these wards during the six month study period. The remaining 14 were student nurses and these comprised about 80% of the population of student nurses working on the wards during the study period. The distribution of these nurses in terms of their status is shown below.

Table 1

Number and status of nurses contributing to sample data base

Status of nurse	No. of nurses	Contributions
1st year student	6	6 X 2 hour recording session
2nd year student	4	4 X 2 hour recording session
3rd year student	4	4 X 2 hour recording session
Jnr.staff nurse	4	7 X 2 hour recording session
Snr. staff nurse	4	7 X 2 hour recording session
	n = 22	n = 28

d) Transcription: The researcher replayed each of the random sample tapes and transcribed all dyadic nurse-patient conversations occurring during the two hour tape recording session. Due to the excellent quality of the recording equipment and the tape machine there were rarely any problems in identifying the content and context of conversations although passages of dialogue often had to be replayed several times before a complete transcript was obtained. In spite of the excellent quality of recordings the transcription process was extremely time consuming - each two hour tape taking anything up to eight hours to transcribe completely. The hand-written transcripts were subsequently typed - keeping each two hour recording session as a separate document. In addition each "turn" or utterance was numbered for both nurses and patients.

At this point, attention should be drawn to the method chosen for documenting the transcribed conversations. In practice, accurate and detailed transcripts of naturally occurring conversation are inevitably complicated, fragmented and untidy. Conversations tend to contain many hesitations and interruptions. Moreover, turns or utterances frequently overlap when both speakers talk at once. A decision was made to document the conversations as far as possible in turn taking sequence - separating out the nurses' contributions and the patient's contributions. Where overlaps in speech occurred the standard symbol of underlining the overlapping speech was used. Short pauses in speech were denoted by stops (.) allowing one stop for each second. A question mark was added to the end of any utterance where an interrogative meaning was considered to have been intended from the intonation of speech. Likewise exclamation marks were used when an utterance was considered to have exclamatory intention.

Sample A data, therefore, consisted of 28 separate sets of transcripts - each set relating to one two hour recording session. Within each transcript all the dyadic nurse-patient interactions occurring during the two hours were documented as described above.

Each new interaction was numbered and all nurse and patient responses were also numbered. The conversation data on these transcripts were then meshed with the observational and demographic data collected in relation to each of the relevant two hour recording sessions.

5.4 Data Sample B - The Context

This section of the chapter describes the collection of additional nurse-patient interaction material using a video-tape recorder in conjunction with audio recordings. As discussed in chapter 4, while it had been established that excellent quality and representative audio-tape recordings could be obtained, such recordings inevitably present an incomplete account of nurse-patient verbal interaction. It was felt that video-tape recordings would, therefore, provide valuable extra information and stimuli especially when developing the framework for analysing nurse-patient verbal interaction. However, it had also been demonstrated that in a small study it was not practical or feasible to collect video-taped material in a way which could be described as 'representative' of nurse-patient interactions. Technical and practical problems associated with the recording equipment mean that the recording process itself will always intrude when recordings are spontaneous. Less intrusive recording results in acceptable visual data but unacceptable sound recordings. However, as described in chapter 4 the exploratory work had established that good quality videotape data could be obtained in relation to specific nursing activities which could be planned for, and the recording equipment set up in advance. It was accepted, therefore, that the video-taped data would not in any way be 'representative'. They would complement the audio-taped data and would take the form of case study material. The cases would comprise certain typical and commonly encountered nursing tasks which involved dyadic nurse-patient interaction.

It is important to emphasise that these data were to be used only as stimulus material and in the development of an appropriate framework for analysing nurse-patient verbal interaction. They

were not collected in a random fashion, nor do they constitute a 'typical' sample. For this reason it was not planned to subject the video data to systematic analysis. Such analysis would be restricted to the audio-tape recorded data.

a)The Hospitals and Wards; During the exploratory stages of the research described in chapter 4 it has been established that acceptable quality video-tape recordings could only be obtained with a minimum of intrusion or disturbance when recording took place in small 'units' with a large amount of natural light. Thus it was necessary to locate male and female surgical wards with both separate 6-8 bedded units and with adequate light.

The design of the wards of Hospital 1 used for the collection of audio-taped data precluded the use of this hospital. Access was, therefore, negotiated to two different hospitals where an appropriate ward design was available and where agreement could be obtained for video-taping to be undertaken. Hospital II was a teaching hospital and facilities were offered in the form of an 8-bedded unit ona female surgical ward (Ward C) which had a total of 22 beds. The ward work was organised upon principles of patient allocation.(+) Hospital III was a district general hospital with a nurse training school, and facilities were offered in the form of a 6-bedded unit (Ward D) for male patients on a surgical ward which had 24 beds in total. The ward was organised by allocating certain members of staff to care for the patients in particular 6-bedded units.

b) The Patients: The majority of patients in Ward C had been admitted for investigation and treatment of skin or breast problems. About half of these patients had a possible or definite diagnosis of cancer. The patients were drawn from a wide geographical area and ranged in age during the time of the study from 17-87 years. The patients on Ward D had nearly all been admitted for vascular investigations or surgery. They were predominantly 'local' and ranged in age from 19-86 years.

(+)patient allocation - A system where nurses are allocated a certain number of patients to care for, rather than specific tasks to undertake for all patients in a particular ward.

c)The Nurses: Ward staff in Ward C comprised qualified SRNs and SENs and three nursing anxiliaries. During the time of the study the ward was well staffed with a typical complement of a ward sister, two or three trained nurses and two or three course nurses on duty during day time shifts. Ward staff on Ward D comprised SRNs, SENs, student nurses and nursing auxiliaries. A typical day-time shift would include sister, two trained nurses, two or three students and an auxiliary nurse.

5.5 Data Sample B - Collecting data using a videotape recorder

a) Consent: All staff and patients on the wards C and D were told about the project and specifically told about the use of a videotape recorder in the ward. They were informed that the researcher was interested in getting video-taped records of nursing activities, and all those involved were free to refuse to participate if they wished. In practice, not one patient or nurse refused to co-operate - indeed the patients, especially, found the process very enjoyable. The nurses were self-conscious at first but soon became used to the equipment. Written consent was obtained from all staff and patients who appeared on any video-tape recordings (Appendix 3(g) and 3(h)).

d) Data collection process: The researcher spent approximately one week on each ward, getting to know staff and patients on the ward and its layout, the whereabouts of electric plugs, vantage points and so on. During this time the equipment was set up and used as described in chapter 4.3. A Sony portable video camera was used, with and without a tripod, in conjunction with the radio-microphone and a portable microphone. During this orientation period the recording equipment was used intermittently but the data from these sessions were not stored. At the end of this period the researcher spent four complete shifts on each ward (two early and two late) video-taping all instances of nurse-patient interaction. Additional data were collected in relation to each recorded scene or interaction in the form of information about the nurse involved (status, age, sex) and the patient (age, sex, diagnosis, social class, length of stay).

By the end of the data collection period, high quality and complete video-tape records had been obtained of the following nursing activities; T.P.R., post-op observation, drug round, pre-operative preparation, baths, dressings and admission histories or admission procedures. Poor quality recordings and incomplete sequences were discarded.

These video-taped records were to be used in the later stages of the research as instances or cases of nurse-patient conversation in these nursing activities. They are in no sense put forward as a representative sample of such interactions.

c) Transcriptions: Each video-tape was viewed several times and any example of nurse-patient interaction identified and catalogued. The dialogue which occurred in relation to each of these interactions was extracted, written down by hand and later transferred to a typescript. Each transcript was meshed with the additional data collected in relation to the particular activities for both nurses and patients. The data were documented using the same method as that described for the transcription of audio-taped material (see p 132).

Summary

This chapter has described the methods used to collect audio-tape and video-tape recorded data of real-life nurse-patient interactions on surgical wards. From the data collected, a stratified sample of 56 hours of audio-tape recorded nurse-patient conversations was extracted and video-taped examples of a range of nursing tasks were identified. These data were to form the basis for the development of methods for analysing nurse-patient verbal interactions. This next stage of the research is described in the following chapter.

CHAPTER 6

ANALYSIS OF RECORDED DATA

CHAPTER OUTLINE

6.1 Quantitative analysis - patterns and structure in the data base.

6.2 Categorisation and classification of data.

A) Testing existing categorisation systems for goodness of fit.

B) Developing a new analysis framework:-

i structure

ii attributes - whole sample

- random sample

iii verbal interaction behaviour

iv overall ratings

6.3 Summary - A tentative multidimensional framework

CHAPTER 6

ANALYSIS OF RECORDED DATA

The aim of this stage of the research was the development of an appropriate framework for the analysis of data collected in the form of nurse-patient conversations. As discussed in chapters 2 and 3 little previous work has been undertaken in this area and this analysis was thus a central element of the study as a whole. The approach adopted was multi-dimensional and the analysis process falls into several distinct stages. At times during these stages there is considerable overlap between activities which could be called 'data collection', those which are in some senses 'results' and those which are quite clearly 'analysis'. However, in spite of this overlap all the work undertaken during the development of the analysis framework is described within this chapter.

The first part of this chapter outlines the preliminary quantitative analysis of the data. This is followed by a description of the steps taken to develop a framework for the categorisation or classification of the data on several levels, in order to extend the depth of description of the data.

6.1 Quantitative analysis

A preliminary quantitative analysis of the stratified sample of 56 hours of tape-recorded dyadic nurse-patient conversations was undertaken. The aim of this part of the analysis was to gain an overall picture of the pattern and structure of nurse-patient communication and the factors which may influence that pattern and structure. Essentially this involved analysing the data to establish who talks to whom, for how long and what about. In addition it was necessary to examine the data to answer such questions as who initiates conversations? Who closes them? and how much space does each participant take

in terms of words and time? As discussed in chapter 3, these are questions which have been tackled by researchers in many different fields, such as educational research, but little work has been undertaken in nursing to date. The patterns and structure of the conversations were, therefore, analysed in relation to the following areas:

a) General characteristics of conversations in terms of length, initiation, context, content, proportion of patient and nurse input.

b) Patient factors affecting conversations such as age, diagnosis, sex, length of stay and social class.

c) General ward characteristics affecting conversations such as degree of busyness, male ward or female ward, number of staff on duty and existence of cubicles or screens.

d) Temporal factors affecting conversations such as time of day, day of week.

e) Characteristics of nurses which may affect conversations such as status, age and ability rating by sister.

This quantitative analysis was achieved by transferring all data extracted from transcribed tapes and observation schedules onto punch cards. These were processed using the SPSS frequency programme.(+) This package gives a simple frequency count of all variables coded and then enables the manipulation of all or any of the above variables or factors in any permutation to produce cross-tabulations and any appropriate statistical analyses. The dimensions coded for each of the dyadic nurse-patient conversations are described below.

Identifying codes: Each transcript was given a code number and every conversation within the data base was also given an identifying code. Each nurse taking part in the recording

(+) SPSS - Statistical package for the social services (Nie et al 1975)

sessions, each patient included in the nurses' interactions and each of the wards were also given identifying code numbers.

Nurse status: Coded 1-5 where 1 = 1st year student nurse, 2 = 2nd year student nurse, 3 = 3rd year student nurse, 4 = junior staff nurse, 5 = senior staff nurse.

Overall nurses rating: Sisters on each ward were asked to give a subjective rating of each of the nurses studied for 'overall nursing ability' on a 1-5 scale, where 1 = very poor, 2 = poor, 3 = average, 4 = good, 5 = very good.

Interpersonal rating: Sisters were again asked to rate each of the nurses recorded on how well they felt each nurse 'related' to patients on an interpersonal level. Again scores ranged from 1 = relates very poorly to 5 = relates very well. The sisters found this rating scale particularly difficult to complete. As one said 'I can tell you how well she does her work but I suppose I don't really know how she gets on with the patients". This sister failed to complete the rating schedules.

Busyness of ward: After each recording session, the nurse was asked to rate the busyness of the ward on a 1-5 scale, where 1 = very quiet, 2 = fairly quiet, 3 = average, 4 = fairly busy, 5 = very busy. The researcher also independently rated the ward for busyness during each session. In 80% of sessions the researcher's and nurses' ratings were in agreement. In the remaining 20% disagreement was only by one point on the scale. In all cases the nurses' rating was taken for coding purposes.

Number of staff on duty: A count was taken of the number of staff actually working on the ward during each recording session.

Time of day: As described in chapter 5, recording sessions took place during one of 7 possible two hour periods during the day. Each two hour period was given a code number as shown below.

am	7.45 - 9.45	9.45 - 11.45	11.45 - 1.45	1.45 - 3.45	2.45 - 5.45	5.45 - 7.45	7.45 - 9.45	pm
	1	2	3	4	5	6	7	

Day of week: Each day was coded where 1 - Monday and 7 - Sunday.

Tasks: A content analysis of all nursing tasks recorded as occurring during the course of the nurse-patient conversation data was undertaken. The complexities of content analysis are described in chapter 3 and in this instance an attempt was made to reduce the resulting list of 53 nursing procedures or activities to a more manageable number of categories. For example, all activities observed related to the giving or taking away of bedpans bottles or commodes were categorised under 'excretion'. Initial problems arose because of the frequent occurrence of activities associated with removing full bottles during the process of filling in fluid balance charts. The activities were subsequently coded as category 16 - fluid balance. The final categorisation system is shown in Table 2.

Table 2

Categorisationof Nursing Activities

01 No task
02 Dressings, stitches
03 Excretion (bedpan, commode, bottle)
04 Wash/bed bath
05 Bath in bathroom
06 TPR/BP
07 Post-op observation
08 Drugs/injection
09 IV care
10 Preparation for investigation or operation
11 Suppository/enema
12 Pressure area care
13 Walking with patient
14 Making beds
15 Admission
16 Fluid balance
17 Serving food
18 Dealing with relatives
19 Administration
20 Other

Each conversation was coded according to the task, if any, occuring in relation to it. Provision was allowed for the coding of more than one task if appropriate.

Screens: Each conversation was coded according to whether the patient's bed was screened (or cubicled) during the conversation.

Patient's diagnosis: The diagnosis of all patients on the ward during the recording sessions was recorded. Diagnosis was taken, wherever possible, to be the surgical procedure, investigation or operation which the patient had undergone or had been admitted for. Diagnosis was taken from medical notes or where necessary, in consultation with the houseman concerned. Thus categories such as 'laparotomy' were used rather than

'cancer of the colon'. This decision was made in order to reduce the total number of categories involved. However when an initial content analysis was undertaken, a list of 42 different 'diagnoses' was generated. These were subsequently reduced to the 11 broad categories shown in Table 3.

Table 3

Categorisation of Patient Diagnosis

01 Major vascular surgery - includes vein grafts, disobliterations and amputations.
02 Gynaecological surgery
03 Orthopaedic surgery - includes plating,fractures, traction
04 Genito-urinary surgery
05 Minor general surgery - includes hernia repair, varicose veins strip, haemorrhoidectomy, thyroidectomy, appendicectomy.
06 Major abdominal surgery - includes laparotomy, gastrectomy cholecystectomy, colostomy
07 Mastectomy
08 Endoscopy - includes gastroscopy, cystoscopy and colonoscopy
09 Investigations - includes angiograms, ECG, cholecystogram
10 Miscellaneous - includes minor surgery for warts, RTA, etc
11 Terminal illness

Patient's age: The age of the patient was coded as shown below:

Under 20 years	20-29	30-39	40-49	50-59	60-69	70+
1	2	3	4	5	6	7

Patient's social class: Patients were coded according to the Registrar General's classification of social class based on occupation (OPCS 1970), previous occupation, or spouse's occupation on a scale 1 - 5.

Length of stay: The length of time patients had been in the ward at the time of recording was categorised as 1 = less than 7 days, 2 = 7 days or more.

Initiation of conversation: The initiator of each example of NPC was coded as 1 = nurse, 2 = patient. Initiation in this context was taken to be the person who had the first 'turn' in the conversation.

Number of turns: The unit of analysis for determining the length and structure of conversations was taken to be the 'turn'. Other researchers have used the expression 'bit' (Ashworth 1976) but this was felt to be confusing in view of its common usage in information theory (Miller 1970). 'Turns' in this analysis refer to each time an individual speaks alone in an interaction. A ' turn' can vary from a monosyllabic "yes", "why", or even "Mm" to a five sentence monologue or more. As an example, a nurse's turn could be "how are you feeling today?" and the patient's turn might consist of "Much better thank you". Conversations were coded according to the total number of turns; patient turns and nurse turns. In addition the number of words spoken by the patient and the nurse in each conversation was recorded.

Length of turns: The length of all dyadic interactions was timed during the transcription stage. In all cases 'generous'allowance was made, timing an interaction from point of initiation until the interaction was completed. This means that any time during a task or interaction when there was no conversation will also have been included in total interaction time. Attempts were also made to time the length of both nurse and patient contributions during an interaction. However, it was found to be almost impossible to assess these accurately and instead it was decided that a simple 'count' of the number of words spoken during each turn would give an indication of the relative length of nurse and patient contributions to any conversations.

Content and topic of conversations: A superficial analysis of content was undertaken using two coders (the researcher and a nurse colleague) to categorise all NPC(+). Coders attempted to categorise the 'overall' content of each of the conversations (i.e. what was this conversation about?). In the case of protracted conversations or where it was not possible to attribute one category, two categories could be used if necessary. The complexities and problems associated with categorising these kind of data were discussed in chapter 3 and involve a conflict between needing to reduce the data to a manageable number of categories whilst maintaining sufficient information. Initially seven categories were constructed, viz: current procedure care or treatment, physical comfort, emotional/psychosocial matters relating to the patient, intake and/or output, medical condition/diagnosis, social 'chit-chat' and other. It proved very difficult to reach a high level of inter-coder reliability on the following three categories - current procedure/treatment/care, physical comfort and medical condition/ diagnosis. They clearly overlap in several ways and it was often difficult to discriminate between them.

It was, therefore, decided to use one category to code all these cases - labelled 'treatment and care'. Using four categories and 'other' it was possible for the two coders to reach an inter-coder reliability level of nearly 90% over the 310 NPC. The main problem was, predictably, in categorising the occasional lengthy conversation. Coders discussed all instances where agreement had not occurred. In addition to the overall content categorisation, coders separately categorised each conversation according to whether the content was specifically related to the task occurring at the time of conversation.

(+) NPC - Nurse patient conversations.

Frequencies and cross tabulations: Frequency counts were obtained on all the variables described and a range of cross-tabulations were undertaken to establish the relationship, if any, between the quantitative data obtained from coding and analysis and:

a) different wards,
b) structure of NPC in terms of frequency, initiation, length and proportion of nurse and patient talk,
c) subject matter or content of NPC.

The results of these analyses are presented in chapter 7. The next section of this chapter deals with the initial stages of the development of a more 'in depth' analysis scheme based on categorisation and classification of the data. The aim of this further analysis was to extend the description of the data base obtained by the quantitative analysis described above.

6.2 Categorisation and classification of data

One of the main objectives of this research study was to attempt to categorise or classify the content and structure of nurse-patient verbal interactions in order to construct a descriptive and explanatory analytic framework. The first stage of data analysis described previously, in section 6.1, had allowed a simple breakdown of content and structure at a quantitative level. The next stage of data analysis was directed towards finding a way which would lead to an increased understanding of the dynamics of nurse-patient verbal interaction. In particular, it was hoped to ascertain what role, if any, the nurse plays in directing the length, content and structure of conversations with patients and to answer the general question 'How do nurses respond to and interact verbally with patients?' The method chosen to examine the data further was that of interaction analysis and the relevance and value of this method has been described in chapter 3.

Interaction analysis involves the classification of units or elements of verbal behaviour into categories. There are several possible approaches to this method. These include:

a) taking existing appropriate categorisation systems and attempting to fit the data to them,

b) generating categories from a theoretical position and then apply the data to the system,

c) deriving the categories directly from the descriptive data base.

It may be possible to take a more eclectic line and use a combination of these approaches.

As described in chapter 3 many categorisation schemes have been developed for use in the analysis of verbal interaction in a variety of situations. Although few schemes have been designed specifically for nurse-patient interaction, two of these (Hays and Larson 1963; Topf 1969) were felt to be potentially appropriate for the analysis of the audio-taped data in this study. The next stage of the analysis process, was thus to try the first of these approaches by undertaking a 'goodness of fit' procedure in which the aim was to assess the value of these two existing schemes in terms of analysing the nurse-patient conversation data.

A) 'Goodness of fit' procedure

In any categorisation exercise it is essential to define the unit of analysis. In this study the units of analysis used were all nurse 'turns' or responses identified in the transcripts. This choice of unit was made on the basis of its simplicity and reliability. These two factors are clearly related and reliability is of fundamental importance in any coding or categorisation process. If the unit of analysis used for coding is ambiguous this introduces an additional dimension of potential unreliability over and above those found within the categories themselves.

Outlines of the existing schemes used in this exercise (Hays and Larson 1963; Topf 1969) are given in Appendices 1(a) and 1 (b). A 'goodness of fit' exercise requires that at least two independent coders analyse the data and attempt to fit the data to the categories. Before this can be done the coders must establish a satisfactory inter-coder reliability rating in terms of their independent use of the categorisation schemes. An additional coder (a nurse) was recruited for this stage of the study to assist the researcher, and the following sequence of activities then took place. Categorisation was undertaken using typewritten transcripts of nurse-patient conversation taken from the pilot work data.

1. Coders read, discussed and became familiar with the Hays and Larson and Topf systems of categorisation. Each item in both schemes was discussed in detail.

2. Each coder analysed the same five conversations taken from the pilot work data independently, using both schemes, coding all nurse responses, where possible.

3 Coders met to discuss the schemes (but not the previous specific categorisation process) in general. Problems encountered in using several of the categories in both systems were discussed.

4. One complete two hour transcript taken from the pilot work data was analysed by both coders independently using first the Hays and Larson scheme and then the Topf scheme.

5. Coders met to discuss the analysis exercise and to assess the degree of correlation between the two sets of categorised transcripts. Overall inter-coder agreement was low - 30% for Hays and Larson and 29% for Topf. The systems were discussed in detail in relation to the difficulties experienced by each coder in the categorisation process and each separate response was examined and reviewed jointly by both coders.

6. A second complete transcript taken from pilot work data was then analysed as described at stage 4, again using both categorisation schemes but this time taking the Topf scheme first and the Hays and Larson scheme second.

7. This exercise was then debated and examined in detail and further reliability measures taken. Overall agreement had improved to 31% for Hays and Larson and 32% for Topf.(+)

At this stage it was becoming apparent that very high inter-coder reliabilities were being achieved on certain items in each of the systems, ie three or four items yielded a reliability of nearly 100%,while on others there was virtually no correlation between the ratings ascribed to each coder.

8. In spite of the lower overall reliability it was felt worthwhile to continue to code further transcripts using these two systems to determine:
   a) if overall reliabilities could be improved, and
   b) to assess the degree to which the consistency with which the items achieving high reliability scores was maintained.

   A further transcript was picked at random and coders categorised nurse responses using the two systems.

9. Overall reliability measures were again calculated and produced depressing results. Overall agreement of 27%was achieved for Hays and Larson and 32% for Topf. However, as before, individual items on both systems did achieve a high inter-coder reliability (80-90%). These items are marked with (+) on the categorisation systems given in Appendices 1a and 1b.

(+) Throughout the 'goodness of fit' procedure inter-coder agreement was based only on those responses which both coders were able to categorise.

As can be seen the results of this goodness of fit exercise were disappointing in terms of demonstrating any fit between these two existing systems and the data base of nurse-patient conversations. In discussion the coders felt that many of the nurses' responses simply did not fit the categories offered by the Hays and Larson scheme. The Topf scheme on the other hand presented a different problem in that many of the nurses' responses could be placed under several of the offered categories of behaviour (eg, they could be categorised as both superficial and interrupting). It was also found that the categorisation process itself was very time-consuming. The coders found that it took on average about one hour to code 20-30 nurse responses for each categorisation scheme. While it was envisaged that increased practice would make this process quicker, serious questions were raised about the potential value of the systems.

Using Psychiatric nurses as coders: The Hays and Larson and Topf schemes had both been originally devised with psychiatric nursing interactions in mind and it was obviously a possibility that failure to use the system may have been a function of either the inappropriateness of the system because the data were not psychiatric based, or the inexperience or 'unpsychiatric' perspective of the coders. The researcher had access to a large group (20 nurses) of general trained nurses who were currently undertaking psychiatric nurse training. These nurses were taught 'Hays and Larson' techniques as a central core to their course. They could in consequence be said to be familiar with the system. It was, therefore, decided to ask this group to individually analyse one transcript using the Hays and Larson categorisation scheme. This activity produced the following results.

Overall agreement was extremely low (less than 20%) although there was a high level of consistency in terms of whether the categories chosen by the group were 'therapeutic' or 'non-therapeutic'. One or two items in the system did produce high reliability scores, eg stereotyped responses (80%). The exercise provoked considerable discussion amongst the group. Their most marked criticism was that there was

not enough information on the transcripts about context, non-verbal cues, etc., relating to the conversation to allow for adequate categorisation. The researcher had been aware for some time that this might be an important factor in facilitating the analysis and categorisation of interaction - even though the focus of the analysis was on the purely verbal response.

Using video-taped data for coding: In order to pursue this possibility the data collected in the form of video-taped examples of nurse-patient interactions were therefore used to establish, by cross-checking, whether the analysis and categorisation process could be undertaken more reliably when data were in the form of video-tapes and transcripts. Excerpts of video-taped data taken from the material collected (as described in chapter 5) were used. Excerpts were selected on the basis of the context in which the interaction occurred, taking three situations which had been found to occur commonly in the audio-taped recorded data collection period. One tape and its corresponding transcript were extracted to represent each of the following situations: a scene from a drug round, a dressing, and an admission 'history'. The researcher and the additional coder used in the previous transcript categorisation process then undertook a new categorisation exercise as follows:

1. Coders independently categorised the three transcripts only using Hays and Larson, and Topf systems.

2. One week later the coders independently categorised the transcripts again while also watching the video-tape.

Overall agreement achieved for this activity was as follows:

Hays and Larson - transcript only	29%
Hays and Larson - transcript and video	32%
Topf - transcript only	33%
Topf - transcript and video	33%

Individual item reliabilities again varied greatly as again the items marked $^{(+)}$in Appendices 1a and 1b, when they occurred, were being coded consistently. In addition, on the Topf scheme, items such as 'interrupts', 'fills silences' and 'overlooking non-verbal cues' were, on the few occasions they occurred, categorised reliably over 90% of the time.

It was not felt that the video-taped input had facilitated the use of either categorisation scheme. Indeed, given the increased familiarity with the material in week two (transcript and video) it might have been expected that a substantial increase in reliability may have been achieved. This was not the case and in addition many practical problems associated with use of video-tape for categorisation purposes were illuminated. For example, analysing units of response as small as turns necessitates continuous stopping, starting up, rewinding and replaying of the tape. This was not only extremely time-consuming but also gave a very disconnected view of the conversations.

The outcome of the goodness fit exercise was as follows. Even with practice, trained coders had achieved poor agreement on most categories in the existing systems. This agreement was not substantially improved either by using psychiatric nurses as coders or by adding video-taped information to aid categorisation. This failure could be due either to the inadequacies in the existing categorisation systems themselves or in the inappropriate nature of the nurse-patient verbal interaction data. Some solace was taken from the following statement by Pool (1959)

> "It is questionable, however, how ready we are to establish standard measures .... in content analysis. Such a measure is convenient when a number of researchers are working on the same variables and when someone succeeds in working out good categories for that variable. It is doubtful that either of those criteria can be met in most areas of content analysis." Pool (1959, p 213)

It was decided therefore to take a different approach to the analysis problem - namely that of attempting to generate categories from the actual data base of nurse-patient conversations. This process is described in the following section.

B) Developing a new analysis framework

The data base being used in this research was in the form of nurse-patient conversations - dialogue consisting of nurse-patient conversational 'turns'. In order to analyse such data it is necessary to label some of the structure and processes involved in such dialogue in a way which is amenable to reliable identification and rating. As discussed in chapter 3, the ultimate aim of any analysis or categorisation system is to define objective categories which are reliable, practical and relevant. The previous section of this chapter described an attempt to use existing categorisation schemes on the nurse-patient conversation data. These schemes were found to be neither reliable, practical or relevant to this study. Because of the dearth of previous work in this area and the specialised nature of the nurse-patient conversation data there was no alternative to taking a different approach. One alternative, discussed previously, involved the use of a theoretical framework to structure categories of description or behaviour. However, at this stage of the research no specific theoretical stance had been identified and an attempt was therefore made to generate categories from the data themselves.

The starting point for this analysis was to explore systematically the ways in which a sample or panel of judges would construe and describe the nurse-patient conversation data. The following methods were used in an attempt to build and overall picture of the constructs or descriptions given by a group of nurses to the data (Kelly 1970).

(1) A panel of 12 qualified nurses, with varied background and experience, who were taking a tutor's course were shown, as a group, the video-tapes with transcripts used in the 'goodness of fit' exercise.

Each scene was shown twice and time given to study the transcript. After each sequence the panel were asked to discuss the interactions and to "describe" their impressions of the nurses' communication with patients. The group discussions were tape-recorded and a content analysis subsequently undertaken of the 'descriptions' or constructs of the conversations. Although many descriptive phrases were generated, the discussions also contained a great deal of material related to the procedures shown on the video-tape rather than to the dialogue per se. In addition the raters asked for the video-taped material to be re-run in order to settle disputes over what had occurred and to refresh their memory about what they had seen. This reinforced the previous impression that the video-tape material acted as a distraction in some way, removing attention from the verbal interaction data. For this reason a different technique was utilized involving a new panel of judges who were asked to carry out a similar task on transcripts alone.

(2) A new panel of judges was selected for two reasons. Firstly a new panel would not have preconceived ideas and opinions from previous group discussions. Secondly the first panel was composed totally of would be nurse tutors. They were a homogenous group with, in consequence, a possible homogenous perspective. It was felt important therefore to obtain a more widely representative view of the data, and one way this can be achieved is by selecting judges who have varying backgrounds and experience. The nursing members of the panel were participants in research study days. Volunteers were asked for and from these a panel consisting of two tutors, two nursing officers, two wards sisters, two staff nurses and two student nurses was established. All these members were either working in or familiar with a surgical ward setting. In addition two lay judges were approached - a sales representative and a university lecturer - making a total of 12 judges. The members of this panel worked independently, and they were asked to read two transcripts chosen at random from the data base of NPC. Each conversation was given a code number andpanel members were

asked to write down their impressions of the nurse-patient interaction in each conversation. These impressions were deliberately unstructured as the researcher was anxious not to influence the panel in any way. The only guidance given to the panel was about the phrasing of the comments. It was suggested that phrases such as "I think this conversation/nurse/patient....." or "It seems as if ...." could be used to begin sentences but they were under no obligation to use these unless they found it helpful. All panel members completed this task, although some found it more difficult than others. The non-nurse judges tended to make very brief comments though they, like the nurse-judges, were generally fairly critical of the interactions.

Generating a framework - emerging themes:

As discussed previously in this chapter, attempts to use existing analytic frameworks on the NPC data proved unsuccessful. An alternative approach was, therefore, taken in the guise of generating an analysis framework from the NPC data themselves. This type of approach borrows heavily from the principles of grounded theory (Glaser and Strauss 1967). It was hoped to generate categories or themes from the panels' written descriptions or constructs. The development of categories or themes is a complex task and some of the problems and pitfalls are discussed in detail in chapter 3. Categorisation can be simple and unsophisticated or tightly described and all-embracing. At the level of analysis being undertaken at this stage of the study, it was felt that a simple classification was in order. As Lazarsfeld and Barton (1951) say, "Until the data are ordered in some way, the analysis of relationships cannot begin..." Indeed they go on to say that a "good" preliminary classification must provide "a workable summary of the wealth of elements in the original data and include - even if in unsystematic form - the basic elements necessary for understanding the situation".

The aim ot this next stage of the research was therefore to extract some dominant themes or categories from the panel descriptions of NPC data. The first stepwas to examine all the descriptions and identify and underline any tangible statements, constructs or descriptions (words, phrases and sentences) related to the verbal interaction data for both nurses and patients. Lengthy scrutiny resulted in the emergence of the following dimensions or categories - structure, attributes and behaviour - and an overall category. It can be seen that these are very broad or general categories and no claims are made for their precision or their comprehensiveness. They merely represent an initial attempt to impose some order upon the data, as follows:

i) Structure: Many of the descriptive accounts contained comments related to the structural properties of the conversations - the most common being reference to the brevity of NPC. Descriptions also included references to the relative proportion of patient or nurse input in a conversation and to the subject matter or context of the conversation. On a conceptual level these observations were seen to fit closely with the quantitative analysis of the data undertaken previously.

ii) Attributes: This term is used to cover the many adjectives and descriptive phrases used by judges which relate to the 'quality' of an interaction or communication (Bannister and Mair 1968). A great many such attributes were extracted from the content analysis and a list was drawn up of those appearing most frequently. This included words such as friendly, kind, vague, superficial, stereotyped, distracted, evasive, appropriate, etc.

iii) Behaviour : This label was used to encompass all the items in the descriptions which related to actual interaction ' behaviour', ie, the nurse or patient doing something. Items which were categorised under this heading included 'listening', 'changing the subject', ' missing the point', 'putting him off', 'making an effort', 'sounding concerned', 'dropping hints', 'avoiding getting involved', 'using cliches'.

iv) Overall: There were also statements and descriptions which were much more sweeping and broad and which often referred to a sequence of conversations or even a complete transcript. These included points like 'there is no communication going on at all', 'she is trying but hasn't got the time', or 'this is alright'.

Analysing the NPC data using the dimensions of structure, attributes, behaviour and overall ratings

It was felt intuitively that these four dimensions of description, although technically distinct, were also very closely related. For example, a conversation or response which was described as 'superficial' might also be described as 'short' and the behaviours identified might include 'avoiding getting involved' while the overall impression might be of 'poor communication'. These dimensions - attributes, behaviour ,structure and overall formed the basis for an in-depth analysis of the NPC data - each area to be analysed both separately and in terms of its relationship to other dimensions of the framework.

Analysis of the data in terms of the structural dimension (i) had already been undertaken (6.1). The next stage of the research was designed, therefore, to develop and refine methods of analysing the NPC data on attributes (ii), behaviour (iii) and overall dimensions (iv). Although derived from a consensus view of the nurse-patient conversation data, such dimensions have little value in terms of providing categories for analysing interactions unless they can be

shown to be comprehensible, usable and reliable. An attempt was therefore made to assess the value of these dimensions by asking raters to apply a range of attributes and behaviour categories to the data and to make overall judgements of the nurses' communication, as seen in the nurse-patient conversation data.

(ii) Identifying attributes of nurse-patient conversations:

The aim of the next step of the research was to use these subjective descriptions or impressions in order to gain insight into more qualitative aspects of the nurse-patient conversations. It was hoped to generate some feeling for the quality of nurses' communication by assessing raters' impressions of the attributes of nurses' responses in a systematic way. This was felt to be particularly important as 'subjective' impressions are commonly used as a method of assessing nurses' abilities (Bendall 1975). The content analysis of the panel's constructs and descriptions of the NPC data sample provided a list of qualitative attributes which could be used, potentially, for classifying transcribed nurse-patient conversation. This list is given in Appendix 4(a). These attributes were placed on a 3-point continuum, eg, assertive-neutral-passive; friendly-neutral-unfriendly. In this way, raters would be given a choice of positive or neutral or negative attribution on each description.

In order to assess the value of these attributes for describing nurse-patient conversations in a consistent and reliable way a rating schedule was developed. The schedule was, therefore, extensively piloted using the participants in research study days as subjects. All subjects worked on one transcript taken from the pilot work data. Over a period of several weeks, a range of subjects rated the nurse responses on each of the 22 descriptions. All attributes which were found to be ambiguous, or which subjects found difficult to rate were eliminated. The list of attributes was finally reduced to the eleven given in Appendix 4(b) again presented in order of their frequency of appearance at the content analysis stage.

Analysing the NPC data base using attributes: All nurse responses or 'turns' in the total data base of NPC were numbered (N - 2442 responses). In view of the potential scale of this rating process it was decided to reduce the exercise by using only the six most frequently appearing attributes out of the eleven which were derived from the panel descriptions(Appendix 4 b).

Two coders, a nurse and a psychologist, discussed these six attributes at length. A pilot work transcript was again used to establish the feasibility of rating such a large number of responses reliably. Coders were asked to use the neutral or not applicable column as little as possible. After practice overall inter-coder agreement reached 72%. The order of the six attributes was shuffled and the poles reversed where necessary to produce three attributes with the 'positive' pole appearing first and three attributes with the 'negative' pole appearing first. The two coders were given a template as shown in Table 4. (over page).

Coders used the template while describing each of the 2442 nurse responses, writing the appropriate code directly on to computer coding sheets. A subsequent check on 1 in 10 of the responses revealed an overall level of inter-coder agreement of 70%.

These data were then transferred to punch cards, then to computer tapes. It was hoped to determine whether there was an underlying structure or pattern to the way in which the NPC data had been

described and rated. An SPSS(+) programme was, therefore, used to calculate the correlation between each attribute and a principal component analysis (PCA)(++) was also undertaken as part of this programme.

Table 4

Coding schedule for attribute ratings on total data base

	Code
Precise	1
Neutral	2
Vague	3
Not applicable	4
Evasive	1
Neutral	2
Non-evasive	3
Not applicable	4
Involved	1
Neutral	2
Uninvolved	3
Not applicable	4
Superficial	1
Neutral	2
Deep	3
Not applicable	4
Patient oriented	1
Neutral	2
Task oriented	3
Not applicable	4
Stereotyped	1
Neutral	2
Unstereotyped	3
Not applicable	4

Results of PCA: The picture which emerged from the principal component analysis was disappointing. Table 5 shows the factor loading and eigenvalues for this analysis following a varimax rotation.

(+) SPSS - (Nie et al, 1975)

(++)PCA - Principal Component Analysis (Kim, 1975)

Table 5

Results of principal component analysis undertaken on total data base.

	Eigenvalue	Cumulative % of variance
Factor 1	2.12064	35.3
Factor 2	0.95671	51.3
Factor 3	0.88092	66.0

Contributions of attributes in total data base

F1	F2	F3
.85 precise	.81 superficial	-.50 non-evasive
- .43 non-evasive	.78 stereotyped	.91 patient oriented
. 67 involved		

It can be seen that only one factor achieved an eigenvalue of more than 1 (although the two other factors reached a value of .88 and .95). It is clearly difficult to extrapolate much from such a situation where one factor is so dominant, yet explains only 35.5% of the variance. Discussion with the coders revealed that while they had been able to use the rating scale with a fair degree of ease they felt frustrated by the constraints of the six attributes for rating and felt they could have used more descriptors. However, they found the rating exercise extremely time-consuming and arduous. In particular they had found the need to code directly on to computer coding forms very tiring.

In view of these findings it was decided to attempt an analysis of a smaller sample of the data base using all of the 11 attributes shown in Appendix 4(b) and many more coders. This would establish whether a more comprehensive pattern lay within subject's description of NPC. While, ideally it would be valuable to code the complete data base in this way, it was not felt to be feasible given the demanding nature of the coding task.

The random sample data base:

This smaller data base comprised a random sample of the total NPC data. This was derived by taking one conversation of each of the 28 sets of two hour transcript material (N = 28). Random number tables were used to determine which conversation in each

two hour session was to be used. Each nurse response or 'turn' (n = 191) in the random sample conversations had previously been numbered. The random sample data set is given in full in Appendix 4(c). A specifically designed rating schedule and instruction sheet was developed (see Appendix 4(d)) which enabled coders to rate in a large space rather than on to computer forms. The order of the 11 attributes was determined by shuffling and approximately half were presented so that a 'positive' pole appeared first. In addition raters were asked to give an overall communication rating to each conversation on a scale which ranged from 1 - very good communication to 5 - very poor communication.

Raters: In view of the fact that the data were generated from general surgical wards it was again felt appropriate that raters should be familiar with the context of the interactions. Contact was, therefore, made with nursing officers on surgical units in four hospitals (one London teaching hospital, on (greater London) D.G.H. with a nurse training school, on D.G.H. without a nurse training school and one D.G.H. with a nurse training school (outside London)). Access was gained through these nursing officers to 40 trained staff working on surgical units. Of these staff, 35 agreed in principle, to attempt the rating task, in which they were required to rate each of the nurse responses in each of the 28 conversations on all eleven attributes (approximately 2,100 ratings).

Each subject was issued with a batch of conversations, a rating schedule and instructions as shown in Appendix 4 (c) and (in view of the scale of the task) was offered a small fee. Twenty of the 35 subjects who had been approached eventually completed the rating task.

Analysis of attributes in random sample data: The data were coded and transferred to punch cards and then on to computer tape. An SPSS programme was used to calculate frequencies for each attribute and correlations between attributes. As raters were entirely untrained and no attempt was made to test for reliability in this coding, overall consistency of coding was assessed. A crude

measure of consistency was obtained by calculating the proportion of the total number of items (n = 191) for which 65% of more of the raters used the same code. The results of this calculation are discussed in chapter 7.

It was hoped to determine whether there was some kind of underlying pattern or structure to the way in which the data were described. A principal component analysis (PCA) was, therefore, undertaken. The results of this PCA and the underlying structure it revealed are also described in chapter 7.

(iii) Identifying verbal interaction behaviour in nurse-patient communication:

The work so far on analysing NPC using descriptors or attributes had demonstrated that individuals can describe conversational responses reasonably consistently along certain dimensions. This on its own may have philosophical implications for nursing care and practice related to both teaching and assessment which are discussed in chapter 8, but in practical terms it was felt important to try to link these descriptions to tangible, recognisable aspects of verbal interaction or verbal mechanisms. Analysis on this level would aid the description of what actually 'goes on' in nurse-patient conversation. The next stage of the research was, therefore, aimed at developing a method for categorising aspects of verbal interaction behaviour in nurse- patient conversations. The panel descriptions had generated a variety of recognisable types of interaction behaviour (Appendix 4(a)). An attempt was made to formulate these into a framework which could be used to systematically analyse the nurse-patient conversation data. Earlier attempts to categorise nurses' verbal behaviour using existing categorisation systems had not been successful. The only type of verbal interaction behaviour which the earlier 'goodness of fit' exercise had identified reliably was 'negative' behaviour (see page chapter 6). It was, therefore, decided inappropriate to attempt to produce an all-embracing categorisation scheme which would capture every possible verbal behaviour. It was, however, interesting to note

that again most of the 'behaviour' identified by the panel was also rather 'negative'. This could be conceptualised as verbal interactions which effectively 'discourage' the development of a conversation. The problem lies in knowing whether this is indeed what nurses were doing in the examples of the NPC or whether it is simply that coders do not recognise positive or 'encouraging' verbal behaviour. As has been said, the panel descriptions had generated the 'negative' behaviour, and it was necessary, therefore, to derive 'positive' behaviour as an alternative pole for raters to use. There is evidence from the counselling literature (Ivey 1971; Hackney and Nye 1973; Combs 1974; and Carkhuff 1969) that certain verbal strategies are positive in that they have the effect of encouraging an individual to continue talking or explore a topic. Equally there are recognisable strategies which are negative in that they block or 'discourage' the continuation of a conversation. As was discussed in chapter 2, it can be argued that nurses should ideally possess skills for encouraging conversation with patients - skills which include asking questions appropriately, listening, picking up cues etc. On this basis a tentative framework was developed to encompass a range of verbal behaviour which 'encourages' conversation and that which acts as a 'discourager' or a block. Types of encouraging behaviour include the use of open questions, appropriate closed questions, reflections or mirroring of patients' words and feelings, encouragement to continue talking, clarification, summarising and recognising verbal and non-verbal cues, direct, indirect or implied questions and responding appropriately to such cues by question or reinforcement. Discouraging behaviour includes the use of leading questions or inappropriate closed questions and failing to recognise verbal or non-verbal cues or responding inappropriately by, for example, blocking, changing the subject or using cliches.

It is important to note that this was not intended to be an all-embracing categorisation system - it is not claimed that all nurse-patient interaction can be classified as one of the above behavioural elements. This framework was designed to facilitate the description of only certain types of verbal behaviour. This involves selective identification of features and each unit of conversation being analysed (the turn) can be coded as either falling into a category or not. This

is similar to the system of categorisation called 'signing' (Medley and Mitzel 1963) described in more detail in chapter 3. In this system it is also possible for certain 'turns' to be coded on more than one dimension. For example, a turn which is coded as 'mirroring' may also be coded as 'recognising a verbal cue'. Thus while making no claims to be a definitive analysis of verbal behaviour, the system allows for the description of aspects of patient and nurse behaviour in conversation and, in particular, the pattern of nurses' responses to patient 'stimuli'.

Piloting the framework: Four two hour transcripts were chosen at random from the pilot work data base, comprising 43 nurse patient conversations to be used to test the behavioural framework. Two coders (the researcher and a psychologist colleague) discussed the framework then worked independently to code each conversational turn in the transcripts.

Each patient turn was read and all instances of direct, indirect, implied questions and verbal cues were coded. It was not possible to code non-verbal cues from the transcripts. Each nurse turn was read and all instances of the encouraging and discouraging behaviour outlined above were coded. Inter-coder agreement varied between the items on the framework. Agreement about open, closed and leading questions was nearly 100% although coders reached less than 60% agreement about whether a closed question was appropriate or inappropriate. Mirroring, reflection and encouragement were coded reliably at more than 90%. No instances of clarification or summarisation were found in the pilot transcripts. Problems arose in differentiating between indirect or implied questions or cues. As a result of this pilot work the framework was adapted and the remaining categories more clearly defined. The adapted framework and the definitions for coders is shown in Appendix 4(e). Use of this framework involved two stages,

a) identifying any instances of patient's verbal behaviour which could be coded as a direct question or as a 'cue'. Cues include all indirect or implied questions or statements which appear to to have been made in hopes of some response from the nurse.

b) identifying any instances of nurse's verbal behaviour which could be coded as either open, closed or leading questions, reflection and mirroring, minimal verbal encouragement or reinforcement ('Uh huh' and 'go on'), postive responses to patients' direct questions or cues, or negative responses to patients' direct questions or cues.

Analysing the complete data base using the "verbal behaviour" framework: The two coders then coded the complete data base of audiotaped and transcribed NPC using the above framework. Overall inter-coder agreement was high (more than 90%) and in cases of doubt an additional nurse colleague was asked to arbitrate. All items on the transcripts were colour coded - with patients' codings in red, nurses' encouraging behaviour in blue and discouraging behaviour in green. This facilitated an 'at a glance' picture of the conversations. Levels of overall inter-coder agreement reached for each item on the coding framework are given in Appendix 4 e. The results of this analysis of verbal behaviour in nurse-patient conversations are given in chapter 7.

(iv) Applying the overall communication rating scale

As was discussed previously the original panel impressions had generated a level or dimension of descriptions which were subsequently called 'overall' ratings. The 20 raters undertaking the attribute rating exercise on the random sample of NPC were also asked to give an overall communication rating to each conversation on a 5-point scale. When the scores for these overall ratings were collated for each conversation it became clear, as will be discussed in chapter 7, that there was a high level of agreement between the 20 coders in

terms of whether they considered the nurses' communication to be good or poor. It was, however, recognised that these overall ratings may have been influenced by the actual attribute rating exercise which the coders had undertaken. In view of this, 20 new nurse subjects (group 2) who had not undertaken the complete rating task (ten 3rd year student nurses and ten staff nurses) were asked to read the 28 conversations and given them an 'overall rating' on the 1 - 5 scale. In addition 20 lay raters (group 3 - student teachers) were asked to complete this task. Overall rating scores were then calculated for each of the conversations for each of the 3 groups of coders. The conversations were then ranked on the basis of these scores from 'best' to 'worst' thus producing three sets of rankings (group 1, group 2 and group 3). Kendall coefficient of concordance (Siegel 1956) was used to assess the degree of agreement achieved both between raters in the group and between the three sets of rankings. The results of this analysis are described in chapter 7.

6.3 Summary - A tentative multidimensional framework

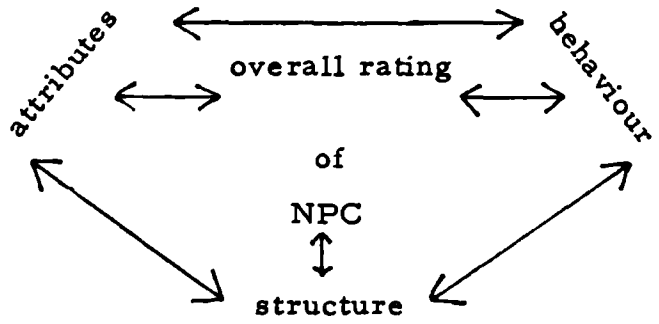
This chapter has included a description of a four-dimensional framework for analysing NPC based upon:

a) Structure
b) Attributes
c) Behaviour
d) Overall ratings

The results of applying each of these dimensions of analysis to the data base are described in the following chapter. However, in addition to the discrete application of these dimensions, the inter-relationship between dimensions was also explored tentatively. This was undertaken on the random sample of the data to determine whether there was any systematic relationship between attribute ratings and structure and behaviour and between each of these three dimensions and the overall ratings. This multi-dimensional analysis is represented in figure II.

Figure II

Inter-relationship between dimensions of analysis



Thus the analysis framework draws on the four different dimensions which tap both descriptive and behavioural aspects of nurse-patient interactions. An attempt was made to demonstrate the relationship of the dimensions of structure, behaviour and attributes to each other and each of these to the overall rating dimension within a sample of nurse-patient conversations. The outcome is described in chapter 7.

CHAPTER 7

RESULTS OF DATA ANALYSIS

CHAPTER OUTLINE

7.1 Quantitative analysis, reflecting the pattern and structure of dyadic nurse-patient conversations.

- a) Frequency of nurse-patient conversations.
- b) Duration of nurse-patient conversations.
- c) Status of nurse.
- d) Sister's rating of nurse's ability.
- e) Busyness of staff on duty.
- f) Number of staff on duty.
- g) Time of day.
- h) Day of week.
- i) Task.
- j) Screens.
- k) Patient diagnosis.
- l) Age of patients.
- m) Social class of patient.
- n) Patient's length of stay in ward.
- o) Initiation of conversation.
- p) Content of conversation.

7.2 Results of analysing random sample data using descriptive attributes.

7.3 Results of analysing complete data base using verbal behaviour categories.

7.4 Results of applying overall communication rating scale.

7.5 Relating overall rating scale to other dimensions of analysis.

7.6 Summary.

CHAPTER 7

RESULTS OF DATA ANALYSIS

In this chapter the results of the multidimensional approach to analysing the data base of transcribed nurse-patient conversations are presented. In section 1 the results of the quantitative analysis provide an outline of the patterns and structure of the nurse-patient conversations. The results of applying the remaining dimensions of the analysis framework to the conversations are described in the rest of the chapter.

7.1 Quantitative analysis of dyadic nurse-patient conversation

The data base of nurse-patient conversations was subjected to quantitative analysis in the form of frequency counts and cross tabulations, using each individual conversation as the primary unit of analysis. The results of this analysis are presented below and additional supporting data are given in appendices where appropriate. Some statistical analysis of the data was undertaken and non-parametric tests were used (Siegel,1956). A description of the nature of the data and the population of nurses and patients, can be found in Appendix 5(a). The overall pattern or picture emerging from analysis is as follows:

a) Frequency of dyadic nurse-patient conversation

The sample of 56 hours of tape recordings contained 310 dyadic nurse-patient conversations which were distributed as follows. Each two hour session contained an average of 11.07 dyadic nurse-patient conversations (the range was from 3 - 24). There were small differences between the male and female wards in terms of frequency of interaction. During a total period of 28 nursing hours on the male surgical ward, 158 dyadic conversations took place. giving an average for each two hour session of 11.28 conversations. This compares with a total of 152 dyadic conversations on the female surgical ward - an average of 10.85 conversations per two hour session. These data are presented in Appendix 5(b). Statistical analysis revealed that the differences were not statistically significant (Mann-Whitney U - 57.5). Differences were also observed in the number of interactions occurring amongst staff nurses and student nurses. Trained nurses in the sample averaged

11.35 NPC's per two hour session (range = 7-15), while student nurses averaged 10.78 NPC's in a two hour period (range = 3-24). These data are presented in Appendix 5(c), but the differences were not found to be statistically significant, (Mann-Whitney U=45.5).

b) Duration of dyadic nurse-patient conversations

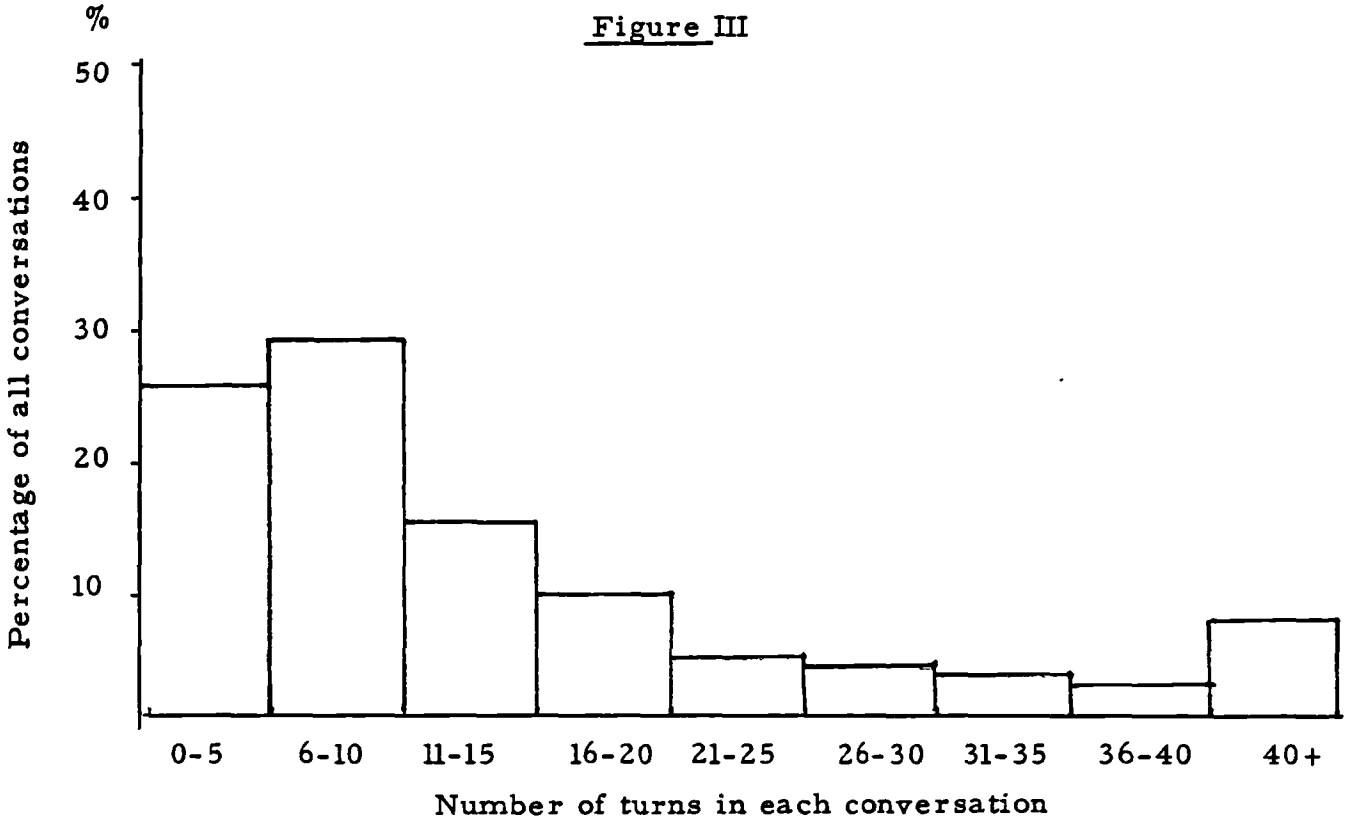
The length of all dyadic interactions (NPC) was timed during the transcription stage. In all cases 'generous' allowance was made, timing an interaction from point of initiation until the interaction was completed. This means that any times during a task or interaction when no conversation was actually taking place will have been included in the total interaction time. Thus the 310 conversations took up a total time of 531.5 minutes, giving an average time per interaction of 1.71 minutes. On average an interaction between a student and a patient lasted 2.01 minutes, while interactions between staff nurses and patients had an average duration of 1.36 minutes. During each 2 hour session an average of 18.98 minutes was spent in one-to-one nurse-patient interaction, which represents 15.8% of each session.

Small differences were observed in the amount of overall interaction time occurring in a two hour period between the wards, with the average time spent on interaction being very slightly longer on the female ward (19.74) than on the male ward (18.22 minutes). The average length of any one nurse-patient interaction was thus 1.81 minutes on the female ward and 1.61 minutes on the male surgical ward. These data are presented in more detail in Appendix 5(d). The differences observed were not found to be statistically significant (Mann-Whitney U = 50).

The amount of time in a two hour period which was spent on dyadic nurse-patient interaction was also compared between staff nurses and student nurses. It was found that staff nurses spent an average of 15.52 minutes in such interaction while student nurses spent 21.72 minutes on average during a two hour period. It can be seen, therefore, that student nurses interacted with patients for more time than staff nurses. These differences in interaction time in a two hour period were not statistically significant (Mann-Whitney U = 40 - Appendix 5(e)).

All the differences in data presented above which relate to the length of interactions between wards and grade of staff must be viewed with caution, as in each case the data base is limited and is inevitably affected by a few very long interactions. For example, the median length of student nurse-patient interactions was 1.13 minutes, compared with an average length of 2.01 minutes. This discrepancy is perhaps better illustrated by examining the structure of the dyadic interactions in terms of the nurse and patient 'turns' - a term used here to describe the individual contributions to a conversation. A 'turn' can be a short interjection such as 'Uhm' or a sentence or even several sentences but is everything that an individual says when it is his turn to speak. A count was made during the data analysis of the length of each conversation in terms of 'turns', i.e. the actual verbal content, and Figure III shows the incidence of conversations containing different numbers of turns. It was found that while the average number of 'turns' in each of the 310 conversations was 16.207, the median length in terms of 'turns' was 9.507. This confirms that more than 50% of all conversations were very short, consisting of 10 turns or less.

Figure III



Block diagram to illustrate incidence of conversations of varying lengths

The pattern of turn taking within conversations was also examined in relation to the differences between nurse and patient contributions. As shown in Appendix 5 the actual number of 'turns' that nurses and patients took were roughly equal (2442 for nurses and 2139 for patients). However, the length of nurses' turns (measured by the average number of words spoken) differed greatly, with nurses contributing an average of 2.7 times as many words to the conversations as the patients. This dimension of the actual content and pattern of 'turns' will be explored in greater detail later in the analysis process.

Cross tabulating the number of 'turns' against each of the wards revealed some small differences in the pattern of conversations occurring in male and female wards. As can be seen from Table 6 the incidence of very short conversations (0-5 turns) was lower on the female ward than on the male ward and there was a slightly increased occurrence of very long conversations (50 turns or more) on the female ward.

Table 6

Comparison of length of conversation (measured in terms of 'turns') between male and female wards

Ward	Turns								
	0-5	6-10	11-15	16-20	21-30	31-40	41-50	51+	
A (male)	51	43	21	16	17	4	5	5	n=162
B (female)	27	50	28	16	9	12	2	10	n=148
								total	=310

The relative proportion of very short NPCs (those comprising 5 turns or less) was compared between wards. It was found that significantly more very short conversations occurred on the male ward ($X^2_i = 6.5122$; $p < 0.02$).

c) Status of nurse

The effect on conversation of whether or not a nurse was trained has already been discussed in terms of the length and number of interactions. In addition to the trained nurse/student nurse distinction, conversations were also coded according to the relative status of the nurse. The pattern which emerged in terms of the average number of interactions occurring in a two hour period is shown

in Table 7.

Table 7

Comparison of the amount of NPC occurring with nurses of different status/rank

	No. of sessions	No. of NPC	$\bar{x}$ no NPC
1st year student	6	58	9.6
2nd year student	4	30	7.5
3rd year student	4	63	15.75
Jnr. staff nurse	7	72	10.01
Snr. staff nurse	7	87	12.42
	n = 28	n = 310	

These data again suggest a pattern of more frequent but shorter interactions as status and experience increases but these differences are not statistically significant (Kruskal-Wallis H = 7.48) This pattern can be explained in terms of a link with 'tasks' if junior nurses are given time-consuming tasks such as blanket bathing. This would inevitably involve longer, enforced interaction time and 'conversation' opportunity.

d) Sister's rating of nurse's ability and interpersonal skill

The Sisters of the two sampled wards were asked to rate all the nurses taking part in the study for overall ability and interpersonal skills. One sister had been unable to complete this task. The scores for the nurses on the remaining ward were related to elements of the coded NPC in order to establish whether a nurse's ability or 'skill' affected her pattern of interaction with patients. No clear relationships were found between the scores and the interaction pattern - a finding which may be due to the crudity of the rating scale employed.

e) Busyness of ward

The nurse who was recorded in each session was asked, after the session, to rate the degree of busyness of the ward during the previous

two hours. This was rated on a 1 - 5 scale, where 1 = very quiet, and 5 = very busy. Frequency of interaction was assessed in relationship to the perceived busyness of the ward and the results (rounded up to whole figures) are shown in Table 8.

Table 8

Relationship of degree of busyness of ward to frequency of NPC

Code		No. of sessions	Total NPC	$\bar{x}$
very quiet	1	(5 sessions)	46	9
quiet	2	(10 sessions)	109	10
average	3	(9 sessions)	108	12
busy	4	(1 session)	6	6
very busy	5	(3 sessions)	41	13
		n = 28	n = 310	

The differences shown here are not statistically significant (Kruskal-Wallis H = 7.308, 3 d.f.). It is, however, of interest to note that in over 50% of the sessions the ward was perceived by the nurse concerned as 'fairly quiet or 'very quiet'.

f) Number of staff on duty

Table 9 shows the number of staff on duty in each two hour session, including auxiliary nurses, in relation to frequency of NPC.

Table 9

Number of staff on duty during each two hour recording session related to frequency of NPC

No. of staff on duty	No. of sessions	$\bar{x}$ NPC occurring during each session
3	1	21
4	7	7.5
5	6	12.5
6	7	14.5
7	5	8
9	2	9
	n = 28	

No systematic relationship between staffing levels and frequency of interaction is apparent - although it is of interest that the one occasion when only three staff were on duty produced the highest rate of interactions (24) whilst the many occasions on which 7 or more nurses were on duty produced a relative low average number of NPC ($\bar{x}$ 8 - 9 in a two hour period). While it is predictable that when few nurses are in the ward, those who are on duty will have many contacts with patients, the reasons why nurses do not also interact with patients when they are less busy are not clear.

g) Time of day

The data analysed consisted of a sample which was representative in terms of the whole working day. The distribution of NPC is shown in relation to two hour periods throughout the day in Table 10.

Table 10

Relationship between time of day and frequency of NPC

	Time of day	Average number of NPC
(Group 1)	7.45 - 9.45 am	10.5
	9.45 - 11.45	3.5
	11.45 - 1.45 pm	13.5
(Group 2)	1.45 - 3.45	16
	3.45 - 5.45	11.5
(Group 3)	5.45 - 7.45	9.25
	7.45 - 9.45 pm	7.25

It can be seen from these data that the afternoon spell yielded the highest rate of NPC. However, statistical analysis failed to reveal a significant difference (Kruskal-Wallis H = 10.92 d.f. = 6). The data were subsequently collapsed from seven to three groups - group 1 morning (7.45 - 11.45 am); group 2 afternoon (11.45 - 5.45 pm) and group 3 evening (5.45 - 9.45 pm). Following this manipulation, it was possible to demonstrate that the differences in NPC rate were significantly different (Kruskal-Wallis H = 8.998, d.f. = 2, $p < 0.02$) However, the afternoon spell is a time when patients are often resting

and few 'nursing' tasks occur. The factor of 'time of day' was cross-tabulated against 'task' and no relationship was demonstrated except a small trend towards more conversations occurring which were unrelated to an identifiable nursing task during the 1.45 - 3.45 pm period - a finding which is predictable given the usual ward routine. The task most frequently associated with conversation at this time of day was that of 'intake and output'.

h) Day of week

The sample of data included equal numbers of two hour sessions for each day of the week and the incidence of NPC was examined in relation to days of the week as shown in Table 11.

Table 11

Frequency of occurrence of NPC related to day of the week

Day of the week	Average no. of NPC in two hours
Monday	8.75
Tuesday	14.25
Wednesday	17.25
Thursday	10.75
Friday	10.25
Saturday	9.0
Sunday	7.25

Table 11 shows that more NPC occurred on Tuesdays and Wednesdays than on other days of the week. These differences were found to be statistically significant (Kruskal-Wallis $H = 15.47$, d.f. $= 6$, $P < 0.02$). An important factor influencing these differences is, as suggested in e) above, the degree of busyness of the wards at time of recording. Tuesdays and Wednesdays tended to be the busiest operating days and busiest in general as rated by the nurses and the researcher.

i) Task

The context of each NPC was coded in terms of which nursing task or situation (if any) was occurring in relation to each conversation. In the absence of a clear task, the NPC was coded as NIL task. As shown in Appendix 5 (g), 88 out of 310 NPC fell into this category of NIL task (28%). The tasks most frequently associated with NPC were drug rounds and filling in flui d balance charts and discussing 'intake'. Dealing with I.V. infusion, serving food, making beds, dealing with admissions, giving bedpans, doing washes, TPRs, injections and dressings also provoked considerable NPC. It is of some interest to note that some 'tasks' were noticeable by their absence in these surgical wards. In particular, pre-operative preparation only appeared three times as the context of NPC. A cross-tabulation was undertaken to produce a picture of the relationship of certain tasks with the incidence of NPC on each ward.

a) Male surgical: 23% of NPC occurred in the absence of any specific task. 15.4% of NPC were related to intake and fluid balance charts and 13.6% were related to drug rounds.

b) Female surgical: 33.8% of NPC occurred in the absence of any specific task. 12.2% were related to drug rounds and 9.5% to the giving of bedpans. 8.1% of the NPC was related to the maintenance of I.V. infusions. This compared with only 3.7% on the male surgical ward.

j) Screens

A note was made related to whether or not there were screens pulled around a bed during a period of NPC (cubicles counted as screened). Sixty five of the 310 NPCs occurred behind screens - and this is a factor which perhaps not surprisingly affected the length of conversations in terms of the number of 'turns' they included. Table 12 shows the different lengths of NPC related to the existence of screens.

Table 12

Percentage of NPC (by turns) in relation to screens/no screens

Turns	No screens %	Screens %
0 - 5	28.6	12.3
6 - 10	33.5	16.9
11 - 15	16.3	13.8
16 - 20	7.8	10.8
21 - 30	6.1	16.9
31 - 40	4.5	7.7
41 - 50	1.2	6.2
51 - 70	0.8	4.6
71 - 100	0.4	6.2
100+	0.8	4.6
	100%	100%
	(n = 245 NPCs)	(n = 65 NPCs)

It was found that significantly more long conversations took place behind screens ($x^2_6 = 43.112$, $p = <0.001$). The relationship between the existence of screens around the bed and 'content' of the conversation was also examined but no relationships or trends were detected. It is probable that nursing activities or tasks requiring 'screening' are, quite simply, more time-consuming than those activities which occur without screens.

k) Diagnosis of patients

The diagnosis or treatment of all patients in the wards on the days studied was recorded. A wide range of surgical conditions and procedures was represented. The most frequently recorded diagnoses in the total population of patients on the wards were laparotomy, endoscopy, vascular disease/surgery, 'investigations'. The diagnosis of all patients included in the NPC samples was coded according to the schedule given in chapter 6, page142 . The most frequently recorded diagnoses in the samples were laparotomy, endoscopy and investigations.

The relationship between frequency of NPC and different diagnostic categories was examined to determine whether patients with certain diagnoses were involved in more interactions with nurses than others. The data are given in Appendix 5 (h). As can be seen there were some differences between the amount of interaction occurring and that expected in relation to numbers of patients within each diagnostic category. These differences were statistically significant. ($x^2 = 19.06$ with 10 d.f., $p < 0.05$). This suggests that patients undergoing major abdominal surgery received more nurse interaction than patients in other groups. While it seems that diagnosis per se may affect the incidence of NPC on the wards studied this is an area which would require larger samples in further investigations.

Some inter-ward differences were also noted in the amount of conversation related to various diagnostic categories. The distribution of different diagnoses on the two wards varied considerably but this was felt to be a function of the consultants' specialities.

l) Age of patients

The relationship between age of patients and the incidence of NPC was examined and is shown in Table 13 .

Table 13

Relationship of frequency of NPC to age of patients

Age in years	Observed frequency of NPC %	Expected frequency of NPC%
1. Less than 20 years	1.9	2.59
2. 20-29	4.5	10.22
3. 30-39	1.9	7.46
4. 40-49	11.0	12.66
5. 50-59	11.0	14.12
6. 60-69	20.3	19.64
7. 70+	49.3	33.27
	100%	100%

+ based on age distribution of all patients on ward (n = 616).

As can be seen, the majority of NPC occurred with patients who were elderly with 49.3% falling into the over 70 years category. The age distribution of male and female patients was similar although there were slightly more female patients at both extremes of the range and more females again in the 70 years and over category. It was felt that this was in fact typical of the patients admitted to the ward studied but in order to confirm this an analysis was undertaken of the age of all patients in the wards on the days when the sample data were collected (n = 616). These data are presented in Appendix 5(i).

Table 13 shows the frequency of NPC related to the age of these patients. This was compared with an expected frequency based on the age of all patients on the wards. However, the observed frequency of NPC occurring with patients in each of the age groups differ markedly from the expected frequency. Younger patients interacted with nurses less frequently than older patients. These differences are statistically significant - $x^2_6 = 50.3$ ($p = < 0.001$). It has been suggested by Stockwell (1972) that younger patients may occupy more of the nurses' interaction time than the older patients. However, when the length of NPC in turns was cross-tabulated with the patients' age no significant differences were found.

m) Social class

It has been suggested that social class may influence the quantity and quality of interactions between doctors and patients (Byrne and Long 1976) - with those patients in social classes 1 and 2 receiving more information and a higher proportion of doctor-time. However, this does not seem to have been the case in this particular sample of nurse-patient conversations. The social class of each patient on the ward was established where possible from the patient's records, using the Registrar General's classification of social class (OPCS 1970). Table 14 shows the percentage of patients falling into each social class category and also gives the percentage of the total NPC which occurred with patients in each of these groups.

Table 14

Distribution of NPC in relation to patients' socio-economic status (Registrar General's classification, OPCS 1970)

Socio-economic status	No. of NPC	% of NPC	% of all patients in each s.e. group	
1	16	5.16	5.19	(32)
2	51	16.45	15.90	(98)
3	96	30.97	32.95	(203)
4	88	28.38	31.16	(192)
5	59	19.09	14.77	(91)
	310	100%	100 %	(616)

As can be seen proportions of NPC appear closely related to the proportions of patients belonging to each class. In order to ascertain whether the social class of patients in the NPC was 'typical' of all patients on the ward, a profile was made of all patients on the ward during the recording periods in terms of their social class. Table 14 also gives the distribution of this total patient sample and as can be seen, the NPC sample and ward populations are very similar with the majority of patients falling into social class 3 or 4. This is a distribution which has been found by other researchers working on general surgical and medical wards (Wilson-Barnett 1977) in the London area.

n) Patients length of stay

It has also been suggested by Stockwell (1972) that patients who stay in hospital for long periods of time are more likely to be labelled by nurses as 'unpopular'. If this is so, then it could also be hypothesised that nurses would have less contact with such patients. All the conversations were, therefore, coded according to the length of time the patient concerned had been in hospital. Two categories were used - 1 week or less, or more than 1 week. Table 15 shows the cross-tabulation of the number of conversations occurring in relation to the length of patient stay.

Table 15

Relationship of length of stay to frequency of NPC

Duration of stay	No. of NPC	% of NPC	%of all long and short stay patients on ward
One week or less	185	59.6	65.54
More than one week	125	40.3	34.46
	310	100%	100%

Statistical analysis was undertaken to establish whether the differences shown in frequency of NPC between short and long stay patients were significant. The difference was found to be significant at the 0.02 level (x^2_i = 5.9324) - patients who had been in hospital for longer than 1 week interacted significantly more frequently with nurses.

o) Initiation of conversation

Each dyadic conversation was coded according to whether the nurse or the patient initiated the conversation verbally. Eighty three and a half per cent of all NPC was initiated by the nurse and 16.5% was initiated by the patients. While this finding is of some interest it must be remembered that this refers to verbal initiation, and contact may frequently be initiated non-verbally (and unconsciously) by patients. No attempt had been made to systematically document such non-verbal initiations. However, subjective observation of the interactions suggests that nurses frequently miss or ignore such cues and this is an area which would merit further study and research.

p) Content of conversations

The overall content of all conversations was categorised and Table 16 shows the proportions of NPC falling into each category.

Table 16

Categorisation of overall content of NPC

Categories	Primary code %	No of NPCs	Second code (+)
Emotional/psychosocial	1.3	4	3
Treatment/care	74.9	233	38
Intake/output	16.4	50	23
Social 'chit-chat'	5.5	17	14
Other	1.9	6	0
	100%	310	

(+) only a few NPC were given more than one category.

As can be seen, the greatest proportion of NPC fell into the category of treatment/care. It was found that the content of 55.2% of the conversations was specifically related to the nursing task being undertaken at the time of conversation. Indeed as 81 out of 310 conversations took place in the absence of a nursing task, this means that all but 51 conversations were directed towards the current procedure.

Very few conversations were shown to have emotional or psychosocial content or direction. A substantial number of the conversations were wholly concerned with details of the patients' intake or output. However, it was recognised that the 'overall' content categorisation may have weighed against NPC being coded as 'emotional or psychosocial' when some of the content may have been of that kind. To examine this further a separate coding exercise was again undertaken to establish how many NPCs included some emotional/psychosocial content. Eleven conversations were identified and agreed as having some emotional content. However there were many more NPCs where some emotional content was felt to be implied but not explicit and this is an area which is

discussed in detail later in the chapter.

7.2 Results of analysing NPC data using descriptive attributes

The method used for obtaining ratings of a random sample of the NPC data on 11 descriptive attributes was discussed in chapter 6, p 157 The frequency with which raters used each point on the attributes was calculated. From these frequency measures an overall descriptive picture of nurse responses was built up (Appendix 5(j)). It can be seen that nurses' verbal responses were generally described as being predominantly precise, friendly, assertive, task oriented, superficial, stereotyped and uninvolved.

The consistency with which the 20 raters coded the responses was assessed. The proportion of items where inter-rater agreement on each attribute was 65% or more was calculated. These figures are shown in Appendix 5(k). It can be seen that there was considerable variation in the consistency with which attributes were rated. The least consistently coded was the dimension of assertion, where more than 65% agreement was only achieved in 95 out of 191 responses. Highest consistency was found in the 'friendly' dimension where more than 65% agreement was achieved for 165 out of the 191 responses.

In order to obtain a more detailed picture of the structure of the nurses' responses and the relationship between the coding of different attributes a principal component analysis (PCA)$^{(+)}$ was undertaken on the data. The PCA indicated that three main factors were underlying the structure of the descriptions of nurse responses. The factors derived following a varimax rotation were labelled as follows:

F1 - warmth or caring - (comprising the attributes of friendly, involved, personal, patient oriented and appropriate)

$^{(+)}$PCA was undertaken as part of the SPSS statistical package programme.

F2 - distance (comprising the attributes of superficial, stereotyped, patronising)

F3 - approach/style (comprising the attributes of precise and assertive)

Eigenvalues and percentage of variance contributed by these factors are shown in Table 17 below.

Table 17

Results of principal component analysis on random sample data

	Eigenvalue	Cumulative % of variance
Factor 1	3.99743	36.3
Factor 2	1.32288	48.4
Factor 3	1.11541	58.5

Contributions of attributes to factors:

F1 (warmth/friendly)	F2 (distance)	F3 (approach/style)
.80 friendly	.74 stereotyped	.80 assertive
.78 personal	.66 patronising	.71 precise
.69 patient-oriented	.60 superficial	
.58 involved		
.51 appropriate		
N.B. (-.34 evasive)	(-.45 evasive)	(-.44 evasive)

It is of interest to note that in addition to the high loading attributes on each factor, the attribute of evasive - non-evasive also contributes in a smaller way to each of the factors.

The pattern which emerges from this analysis differs substantially from that carried out on the complete data base of NPC. The first two factors, labelled 'warmth/caring' and 'distance' could be compared with the dimensions of 'coldness-warmth' and 'superior-inferior' which could have been consistently identified as in many areas of social research as indicators of personality and attitude (Foa 1961; Lorr and McNair 1965). The implications of these findings are discussed in chapter 8.

7.3 Results of analysing data base using verbal behaviour categories

The framework designed for analysing aspects of verbal behaviour in nurse-patient conversation was described in detail in chapter 6. and the categorisation scheme can be found in Appendix 4 e. In this section of the results chapter, findings related to the use of the verbal behaviour analysis are presented in the context of extracts from the NPC data.

The first step in the use of the framework involved identifying any instances of patients' verbal behaviour which could be coded either as a direct question or an indirect question, statement or cue. Analysis of the complete data base of transcribed NPC revealed a total of 582 patient 'turns' which contained either a direct question or statement which is made by the patient in the expectation of a positive response from the nurse in the form of encouragement, information, etc. Of these 582, 116 (or 19.9%) were coded as 'direct questions', the remainder being 'cues'. It is interesting to note that patients appeared to make the majority of their needs felt through an indirect rather than direct approach.

Scrutiny of the direct questions asked by patients was also revealing. Of the 116 questions approximately 30% were questions about the patients themselves, their treatment or their care. For example, in this extract from a conversation both a 'cue' and direct questions are found.

(0821) P: It would be nice to get up today on some crutches (cue).

(0921) N: Yes it would ...where's the soap?

P: It's here.

N: Right, whoops.... have you given it a good wash round tube? (catheter).

P: Yes I have. How long will it have to be in there, do you know? (direct question)

N: Well, till they say it comes out I suppose. It shouldn't be long.

However, only about one third of the direct questions were like the above example, The majority were what could be labelled clarifying questions, confirming questions or even conversational gambits. For example, while an old lady was having her pressure area care, the nurse said:

(1667)N: Whoops a daisy, up we go.

P: What do you want me to do now? (direct question)

N: We'll just stand you up, just for a short while.
(then referring to the cellular blanket) -
These things don't look very warm but they are quite warm.

P: Are they?

The data suggest that the majority of questions from patients are either indirect or implied or 'cue' statements. One example of these has already been given (P 0821) "It would be nice to get up today on some crutches". Examples of these kind of statements were numerous, as in this extract where a nurse was changing the patient's colostomy bag.

(0304) N: Alright? This is just taking the bag off.

(0282)P: It's full.

N: That's good.

P: The other one was full,

N: Was it?

P: I'm eating too much perhaps? (cue -indirect question)

N: Oh no, I would doubt it. Now we'll just clear the area round it. That's lovely.

In another example the nurse was doing the drug round and was giving this patient his tablets.

(0835) N:There we are dear, OK?

(0735) P: Thank you. Do you know I can't feel anything with my fingers nowadays at all. (cue)

N: Can't you?

P: No, I go to pick up a knife and take my hand away and it's not there any more. (cue)

N: Oh, - I broke my pen'.

Here, coders agreed that the patient was making a statement which was intended as a deliberate cue to the nurse. So, although he did not ask her directly to look at, or advise him about his hand, he <u>did</u> want to tell her about it.

The second step in the use of the 'verbal behaviour' analysis framework involved examining the nurse turns or utterances and identifying instances of any of the behaviours described in Appendix 4e. All the transcribed data were scanned for the questions which nurses asked patients. A total of 892 questions were identified. Of these, 677 (75.8%) were coded as closed questions, 143 (16%) as leading questions and 82 (9.2%) were open questions. The predominant use of closed questions is accentuated further by the fact that nurses often asked a succession of questions, many of them closed, without waiting for a reply. For example, here the nurse was talking to the patient about her physiotherapy.

(1189) N: Did you get on alright?
(1042) P: Um..she..
N: Are you cool enough? Shall I open that?

And again when a nurse went to look at what is happening to a patient who was behind screens:

(2053) N: How are you Mrs R? Are you alright love? Do you want the blankets over you? Are you hot?
(1083) P: No, the nurse... I don't know what she was going to do now. I don't know.

As has been said, very few example of nurses using open questions were identified. Indeed, the figure of 9.2% is a generous estimate, in that many apparently 'open' questions were asked in the manner of the example quoted above (1189N). Here although the nurse technically asked an open question, "How are you Mrs R?", she leaves no time for an open response. Instead, she imposed a response on the patient. This, again was a commonly identified occurrence. For example:

(0980) N: How are your legs feeling? Sore?
(0872) P: Yes a bit.
N: Do you want anything for it?
P: No, I think I'm alright thank you.

or:

(1515) N: Hullo.....How are you this morning? Any better?

However, open questions were occasionally asked in an'open' way as in the following examples:

(0712) N: How are you feeling today, Mr M..

(0162) P: Err, not so good.

N: Not so good today?

P: I woke up again last night.

and:

(1883) N: Hello, Mrs G. How are you today?

P: I'm getting a little pink now instead of yellow.

Sixteen percent of all nurses' questions to patients were leading questions. Many of these appared to be a form of conversational habit, especially as in N 0510 "You're alright aren't you?", and N 0505 "You're not on a chart are you?" and referring to water in a glass N 0498 "You've had most of that haven't you?" In another example, the nurse was removing sutures and said: N 1151: "Now I'm just taking this one out... There that didn't hurt, did it?"

Sometimes the use of leading questions leads to complications.

(0397) N: Mr C.. The doctor saw you, didn't he, and he advised you to stay in today?

(0363) P: No um..

N: He saw you, didn't he?

P: No, he didn't, he turned round and said I could go this afternoon if I felt better.

Another verbal behaviour which coders were asked to identify was the use of verbal reinforcements - that is, the "yes", "go on", and "uh huh's" which make a patient feel able to carry on talking. The overall incidence of verbal encouragers was low (n =67). However, it must be emphasised that coders were working from transcript material. Minimal verbal encouragers may not have been noticed or included at the transcription stage. This would be an interesting area to pursue in future research, using the video-tape data. Such data

would facilitate the identification of even the most minimal encouragers or reinforcers. When verbal encouragement was used, it appeared to be successful - i.e. patients did indeed continue. For example:

(1193) N: Hello, how are you?

(1045) P: I'm well thanks.

N: Uh, huh.

P: Yes, I'm going home on Friday - at least I hope so.

N: I see..

P: They want to do another x-ray.

The incidence of nurses' use of the technique of mirroring and/or reflection was also explored in the transcripts. Coders found few instances of these techniques (n = 40) and of these only six were 'reflection' and it is interesting to note that the few examples which were found also demonstrated the use of other encouraging tactics. For example, this nurse was looking at the patient's 'redivac' drain.

(0677) N: Hello, how are you?

(0602) P: Alright, thank you.

N: Jolly good. Can I just have a look at this little connection.

P: I feel bothered about that thing.

N: Do you? (encourage)

P: When I move I think it'll come unstuck.

N: Ah, it does feel a bit like that when you've got a lot of tubing (reflection).

P: It's alright then?

N: Yes, it's very secure, I wouldn't worry about it.

The technique of mirroring, which has been shown to act as a powerful reinforcer in conversation (Ivey and Authier 1971) was found occasionally. For example, during an admission history this nurse asks:

(0732) N: How have you been feeling? (open)

(0655) P: Rough

N: Rough? (mirroring)

P: Really rough, it couldn't be worse. Oh my God, last night. - I thought I'd never see morning.

N: Were you being sick?

P: I was before I left this morning.

N: Do you still feel sick?

However, some instances of 'mirroring' were found in situations which seemed subjectively, to be being used for a different, more inhibiting purpose. For example:

(0726) P: Nurse, I've got some pain again.

(0817) N: Pain?

P: Yes

N: Well, you only had your injection a while ago.

The third stage of the verbal behaviour analysis of the NPC data involved identifying the way in which patients' direct questions or cues had been responded to by nurses. As discussed in chapter 6 this aspect of the analysis was more complex than the previous identification of individual behaviours. It involved coders deciding whether a nurses response to a patient's question or cue was 'positive' or 'negative'. These reponses are defined in Appendix 4e. Inter-coder agreement was 83% for the positive responses and 89% for negative responses. Coders reached 100% agreement on 499 out of the total 582 direct questions or cues from patients. Of these, 269 were seen to have received a positive response while 230 (46%) received a negative response. A positive response to questions or cues required the nurse to answer a direct or indirect question or pick up an implied question or cue and encourage the patient to continue. For example, in this extract, the staff nurse was checking the charts at the end of the patient's bed and was talking about his dressing.

(0365) P: She was very careful, your little nurse was.

(0401) N: Uh huh

P: And she says she's going to take the stitches out. What are they? Just these? (direct question)

N: No, all of your stiches - the stiches here and the stitches in your bottom as well. You'll feel much more comfortable without all those (gives information)

(0367) P: What does she use to loosen them? (direct question)

N: To loosen the stitches?

P: Yes

N: Well you use a pair of forceps, lift a piece of the stitch up and then cut underneath. It dosen't cut your skin or anything. You just feel a bit of a tug underneath. Alright? It won't hurt? (gives information)

(0369) P: The last ones I had were on my head in India.

N: I can't see the scar (laughs).

However, as was mentioned previously, direct questions from patients were uncommon. Many positive responses to indirect questions or cues were also identified. For example:

(1910) N: Hello dear. How are you today?

(1681) P: Oh not too bad today, except my bladder's a bit of a nuisance (cue

N: In what way? (explore open question)

P: It keeps dripping every two minutes.

N: Are you measuring it?

P: Yes, it's just a teaspoonful like this.

In this extract the nurse was helping the patient to wash.

(0804) P: It's rather tender...er..where (cue)

(0905) N: Yes....(encourage)

P: Where they were messing around a lot yesterday.

N: Uh huh.

P: They really did mess around. Painful 'do' it was yesterday.

Although many of the patients' questions or cues were met with similar positive responses, nearly 50% received a negative response. These included nurses missing, avoiding or ignoring a direct question or cue either by failing to encourage, changing the subject or using a clichéd or stereotyped response. A particularly interesting finding is that coders frequently identified situations where a nurse would respond positively and negatively within the space of one conversation. For example, as the conversation quoted above progressed the following interaction took place.

(0907) N: Yes it was.

(0807)P: I never realised how painful an x-ray could be. (cue)

N: OK, dry? (change subject)

P: Yes, and then.

N: How about your bot?

P: Pardon

There were many instances when it is not clear what the patient was trying to say, only that there seemed to be'something'. For example, in this conversation (complete) the nurse was talking to a recently admitted patient.

(0826) N: Have you got one of these on? (identification band)

(0783)P: No, not yet. The last time I had.. (cue)

N: No, well I'll popit on. (ignores)

P: The last time I had one of those....(cue)

N: Oh really. To make sure you didn't get lost. There we go. OK? (cliche and stereotyped)

While the nurse appeared to ignore the patient's comment, she had clearly 'heard' it in that she then puts her own interpretation of what the patient might have been going to say'. The outcome was an effective termination or closure of the interaction.

Examples of negative responses to <u>direct</u> questions were also identified as shown in the following example where the patient (an elderly lady) was being prepared for theatre.

(2440) N; You're not wearing any make-up at the moment, no hairclips?
(2137) P: No

N: And the doctor showed you the green consent form?

P: Yes, I signed it. I shall get out of here soon, shan't I darling ? Because they do send in a home nursing help when I get home, don't they? (question)

N: I'll leave you in peace now for a few minutes (change subject)

It has only been possible to give a very small selection of the examples of verbal behaviour which are available in the data. The random sample of NPCs given in Appendix 4c, offers examples of behaviours discussed above. Subjectively it was felt by coders that individual nurses varied considerably in their approach and in their use of certain behaviours. Equally, as discussed above, nurses were found to use a range of behaviours - they were not all 'good' or all 'bad'. Again no attempt was made to look for individual nurse differences in terms of verbal behaviours in a systematic way. This decision was made in view of the relatively small data base and specifically because the very large variation in quantity of nurse-patient interaction which would make relative comparisons very difficult. However, patterns of verbal behaviour were explored in relation to the overall communication ratings given to conversations. These are discussed in the next section.

7.4 Results of applying an overall communication rating scale to NPC

As was described in chapter 6, the 20 raters who undertook the analysis of the random sample NPC using attributes, were also asked to give each conversation an overall communication rating on a scale 1 - 5, where 1 equals very good communication and 5 equals very poor communication. In general, conversations were rated as being average - poor. Very few raters used point 1 on the scale, indeed this point was only used 14 times out of a possible total of 588 ratings. As discussed in chapter 6, it was felt that the first group of nurse raters' (group A) perceptions of the NPC may have been affected by the large scale analysis using attributes which they had undertaken. Two further groups of 20 raters, one of nurses (group B) and one of non-nurses (group C) were given the 28 random sample conversations

and asked to give an overall rating on the 1 - 5 scale for each conversation. Inspection of the distribution of ratings showed that there was a marked tendency to rate low for both groups, with point 1 on the scale again being used rarely.

The 28 random sample conversations were to be ranked from 'best' to 'worst' on the basis of these overall ratings. In order to do this, it was necessary to establish that the raters had coded the conversations consistently. Group A's ratings were assessed using the measure of Kendall coefficient of concordance: W, but in view of the large number of ties for each rater, it was necessary to standarise the raters' scores. Working on standardised scores, a high level of concordance was demonstrated, ($W = 0.3920$, significant $p < .0001$). No correction was made for ties in view of the fact that W was highly significant. (correction would increase significance).

In view of the high level of concordance demonstrated, each conversation was then ranked according to its average rating over the 20 raters. This was done for the three groups of raters and these rankings are given in Appendix 5(i). A further test of concordance was then carried out on the basis of these rankings to determine the intergroup concordance. Using Kendall coefficient of concordance it was found that W - 0.92886 which is significant at the 0.0001 level. These findings demonstrate that individuals show a high level of agreement in overall communication ratings given to conversations both within one group of 20 raters and between three groups of 20 raters. The implications of these findings are discussed in chapter 8.

7.5 Relating overall ratings to other dimensions of analysis

As discussed previously, the random sample conversations were ranked from 'best' to 'worst' on the basis of the overall ratings and then divided into four equal groups of 7. The random sample conversations can be found in Appendix 4(c) and are presented in 'best' to 'worst' order based on the overall ratings. The aim was to look for relationships between the overall communication rating of a conversation and selected dimensions of analysis which had been undertaken previously. The relationship between overall

rating and rating on the 11 descriptive attributes and the relationship between overall rating and verbal behaviour were examined.

In order to use the conversation data in grouped format it was necessary to establish that the basic characteristics of each group were similar. In particular it was necessary to ascertain that they were of similar length. Table 18 below shows how numbers of turns in each NPC were distributed within the four groups.

Table 18

Number of turns in conversation compared between four groups of NPC

Group 1 (best)	Group 2	Group 3	Group 4 (worst)
9	8	12	14
8	37	6	11
8	17	18	9
14	29	7	15
9	9	5	14
11	9	3	10
12	4	5	15

Kruskal-Wallis test was not significant (H = 5.469) and this allowed the assumption of no significant difference in the number of turns between groups of conversation.

In the first instance the relationship between overall rating and rating on the 11 attributes was examined. A related T test was undertaken to determine whether ratings on the 'best' seven conversations in terms of the eleven descriptive attributes differed significantly from the ratings given to the 'worst' seven conversations. The results are shown in Table 19.

Table 19

Difference in mean attribute ratings between 'best' and 'worst' groups of NPC

Attribute	'best NPCs' mean rating	'worst NPCs' mean rating	t	Sig. level
1-precise/vague	1.6206	2.0395	-11.30	<.0001
2-patronising/deferent	2.1773	1.7802	4.36	<.0001
3-personal/impersonal	1.3360	2.1286	-10.80	<.0001
4-friendly/unfriendly	1,1890	1,7871	-11.39	<.0001
5-assertive/unassertive	1.8838	1.9651	-0.84	N.S.
6-superficial/deep	1,8090	1.4003	6.44	<.0001
7-patient oriented/task oriented	1.4651	2.1383	-9.21	<.0001
8-stereotyped/unstereotyped	2.0504	1.6829	4.04	< .001
9-involved/uninvolved	1.6098	2.4565	-11.83	<.0001
10-evasive/non-evasive	2.4944	1.9427	11.37	<.0001
11-appropriate/inapproriate	1.4426	2.0414	-12.19	<.0001

As can be seen, a significant difference was found between the mean scores for the best and worst groups on each descriptor, except assertive-unassertive. This finding is discussed in chapter 8.

The distribution of verbal behaviour across the four groups of conversations is shown in Table 20. Behaviour was divided into encouraging (open questions, mirroring, reflection, encouraging and the response to cues) and discouraging (leading questions and negative response to cues).

Table 20

Comparison of verbal interaction behaviour between four groups of NPC

	Cue +ve	E	M/R	Open	Closed	Leading	Cue -ve
Group 1	17	3	2	3	8	-	1
Group 2	10	3	3	4	24	7	4
Group 3	2	-	-	-	13	3	8
Group 4	3	-	-	-	15	5	26

It was predicted that the 'best' conversations would contain more encouraging behaviour and less discouraging behaviour than the 'worst' conversations. Chi square tests were undertaken on these data both with and without the closed question category. When closed questions were included $x^2_3 = 66.07$ and differences were, therefore, significant ($p < 0.001$). Similar findings emerged when the closed question category was withdrawn ($x^2_3 = 54.19$, $p =< 0.001$). This supports the prediction that the best rated conversation contained more encouraging behaviour and fewer discouraging tactics. Closed questions do not appear to have a systematic relationship to overall ratings. The implications of these findings are discussed in chapter 8.

7.6 Summary

The results of analysing a sample of nurse-patient conversation data in many different ways have been described in this chapter. The findings from the quantitative analysis seem fairly clear cut. A picture emerges of short interactions, often nurse-initiated, frequently related to a nursing task being carried out and restricted in terms of topic. Interpretation of these results is discussed in chapter 8.

The results of using a more qualitative approach to data analysis, in particular that of using descriptions or attributes and overall ratings, are more difficult to interpret. The implications are primarily methodological, pointing to directions which future analysis may take and this again is discussed in the following chapter. The findings which emerge from analysing the data in terms of verbal behaviour may have practical ramifications in terms of the practice and teaching of nursing. Many questions are raised about nurses' use of certain types of verbal behaviour and strategies, but in view of the small amount of data available from each of the nurses involved the findings must be viewed with caution. For this reason the temptation to look systematically for inter-nurse differences has also been avoided but the potential of this method of analysing nurse-patient interactions in further research is explored in the following chapter.

CHAPTER 8

DISCUSSION

CHAPTER OUTLINE

8.1 Data collection methods.

8.2 Data analysis methods.

a) Quantitative analysis.

b) Analysis using descriptors and attributes.

c) Analysis using verbal interaction categories.

d) Using an overall communication rating scale.

8.3 Who controls nurse-patient interaction?

8.4 Do nurses deliberately limit their interaction with patients?

8.5 Some possible explanations for limited nurse-patient verbal interaction.

8.6 Implications of the research findings.

8.7 Conclusion.

CHAPTER 8

DISCUSSION

The research reported here was concerned with the general question of what actually takes place when nurses and patients communicate by talking to each other. The focus was thus upon the development of appropriate methods for collection and analysis of an accurate data base of real-life nurse-patient conversations (NPC).

A multidimensional analysis framework was used for gaining empirical and descriptive data on the content and dynamics of nurse-patient conversation in surgical wards. In this chapter the results of applying this range of approaches to the verbal interaction data are discussed in the context of the insights and information generated.

In addition to over-riding questions related to the actual content and dynamics of nurse-patient conversations, many subsidiary questions and issues were raised as a result of reviewing the literature on nurse-patient communication. Like the main research question, these were not cast as formal hypotheses to be tested. However, it was hoped that the collection and analysis of nurse-patient interaction data would facilitate the exploration of many of these questions and issues and allow systematic research questions to be formulated. Throughout this chapter, therefore, reference is made to the questions and issues raised earlier - when the findings appear to shed some light on them, or where the data can be used as the basis for generating further research questions or hypotheses.

8.1 *Data collection methods*

The aim of data collection was to acquire an accurate data base of nurse-patient verbal interactions. However, any attempt to study what people say to each other is fraught with difficulties. The problems that arose and the approaches taken to overcome them were described in detail in chapter 4. The effectiveness of the methods used are discussed below in terms of how well they achieved the aim.

The radio-microphone method of tape-recording was found to be practical and acceptable to all those who participated in the study. Used in combination with vigilant and systematic observation these recording techniques were found to pose few problems when used for periods of $2\frac{1}{2}$ hours or less. The disadvantages of the method are, in the main, not attributable to the type of machinery involved but to the use of tape-recording per se. The transcription of tape-recorded data is time-consuming and demanding. While this method would seem to be appropriate for further work on the analysis of nurse-patient interactions these factors should be considered carefully before large-scale studies are undertaken.

While audiotape recording provided excellent data on verbal aspects of interactions it is essential to collect video-taped records of interactions if non-verbal information and analysis is also required. In this study, video-tape recording was used to collect supplementary material but was not used for the main data base of verbal interactions. It must be admitted that the researcher was initially cautious about using videotape recording techniques in hospital wards. The problems of access, setting up and intrusion were all discussed in detail in chapter 4. However, with the benefit of hindsight, data collection by video-tape is now seen as a research tool with exceptional potential for use in nursing research. By providing data on almost all aspects of an interaction, including elements of context and many aspects of the content, this method provides limitless possibilities for different approaches to analysis. While video-recording is clearly highly appropriate for the analysis of elements of communication or interaction, the method would also be valuable for the observation and analysis of a variety of nursing activities or tasks. Indeed all 'observable' behaviour can, in principle, be recorded using the video-tape recorder.

One of the most important findings from this study concerning the use of video-tape recording for nursing research lies in the acceptability of the medium. Experience of using video-recording in this research project as in other fields (Stubbs and Delamont 1976) showed that not only did individuals appear to quickly become used to being 'filmed' but that it was a pleasant medium to work from at later stages in the research. For example, looking at a TV screen was reported by the panel members to be more acceptable than listening to tape-recordings alone.

It is suggested, therefore, on the basis of this present experience that video-tape recording as a means of data collection has much potential in many areas of nursing research and at many different stages of the research process. For example, video-taped material such as that collected in this project could be used for:

a) The identification of research issues.
b) The generation of specific research questions.
c) Refining observation techniques.
d) Establishing criteria for rating procedures, behaviour etc.
e) Training coders, raters and observers.
f) Developing assessment criteria.

Finally, the use of both audio-tape recording and video-tape recording as data collection methods has the advantage of providing a permanent 'data bank'. This means that data can be subjected to post hoc scrutiny and analysis using as many raters as required. Perhaps more importantly, it means that the same data can be objectively analysed from a number of different perspectives. Further research questions can be generated and the data re-used for the exploration of these new areas.

8.3 Data analysis methods

The review of the literature on methods of interaction analysis described in chapter 3 revealed a confusing variety of approaches and methods. In this present study, the first stage of analysis involved attempts to apply two existing categorisation schemes (Hays and

Larson 1963, Topf 1969) to the nurse-patient interaction data. This 'goodness of fit' exercise was, in some senses, unsuccessful in that the schemes were shown to produce inadequate descriptions of the data. However, a number of important issues were highlighted. As discussed in chapter 6, coders failed to reach acceptable levels of agreement when using these schemes, even after extensive training and practice. These poor levels of agreement were seen to be largely due to the inappropriateness of the categories for the data being analysed and the way in which these two systems had been originally developed. Both of these categorisation schemes were based in part, on specific theoretical concepts, rather than being derived from empirical data. In addition, there is little existing evidence in the literature of other attempts to assess the reliability or validity of either scheme. These criticisms are felt to be important because of the use which has been made of such categorisation schemes in nurse education (Newman 1966; Nurse 1977). Before analytical frameworks such as that of Hays and Larson can be justified as the basis of teaching methods, the extent of their validity, at the very least, should be established.

The early experience of attempting to apply these categorisation schemes to the data collected had a profound effect on the subsequent direction of the study. It was felt that any attempt to identify and apply approaches to interaction analysis should be generated from explorations of the interaction data themselves. This view was shared by Labov and Fanshel (1977) when examining existing schemes for the analysis of doctor-psychiatric patient interviews;

> "If the goal is to understand in any substantive way the nature of conversation, we find these (theoretically derived) categorisations premature. Indeed if our understanding of conversations were at the level that permitted us to divide all the phenomena into a closed set of 6 to 12 categories, it might be said that all the serious problems had been solved already. It seems to us, however, that we are far from that point." (p 19)

In response to the methodological problems, described above, a multi-dimensional approach to analysing the nurse-patient interaction data was formulated and used in the remaining stages of the data analysis. In the following sections of this chapter all these dimensions of the analysis process are discussed in relation to the findings generated by them and their value and potential for future research. The present findings are examined in terms of the insight they provide into nurse-patient conversations and their implications for teaching and practice in nursing.

a) Quantitative analysis

(i) Method: As discussed in chapter 6 the quantitative analysis methods used to assess the pattern and structure of NPC data proved relatively straightforward and effective. The primary unit of analysis was the 'conversation' and all data were coded on 16 variables. The results of this analysis are discussed below.

(ii) Results: The overall pattern of dyadic NPC which emerged was one of infrequent interactions, of short duration which occurred mostly in conjunction with a specific nursing activity. This pattern was unaffected by many of the other factors examined such as the time of day or day of the week or social class of the patient concerned. Analysis of frequency of NPC revealed that on average 5.5 dyadic nurse-patient conversations occurred per hour. This compares with a rate of four NPCs per hour found by Wells (1975) when examining nurses' interactions with geriatric patients.

Many researchers have described interaction rate in terms of percentage of total nursing time spent in interactions with patients. It is appreciated that the settings in which such studies were undertaken may not be directly comparable with general surgical wards and in particular the characteristics of the patients and nurses in each speciality are likely to differ substantially. However, in spite of these potential differences, it is noticeable that interaction rates between nurses and patients are consistently low.

For example, the finding of this present study was that nurses spent approximately 15.8% of their time in one-to-one conversations with patients. This compares with 14% found by Ashworth (1976) in intensive care units, 13% by Cormack (1976) in psychiatric wards and 8.9% by Altschul (1972) also in psychiatric wards.

The duration of nurse-patient verbal interactions was also examined. It was found that each interaction lasted on average, 1.71 minutes, or when expressed in 'turns' - 16.207 turns. More than 50% of all NPC consisted of 10 turns or less. These data compare with an average length of 2.3 minutes shown by Cormack (1976) who found that 86% of NPC lasted less than four minutes, Macilwaine (1981) also on psychiatric wards, showed that the majority of interactions were less than five minutes long. Bond (1978) showed that 95% of interactions between nurses and patients on a radiotherapy unit lasted less than three minutes and Faulkner (1980) on general medical wards found that nurse-patient interactions lasted on average between 2-3 minutes.

So again, a fairly consistent overall pattern of short nurse-patient interactions is demonstrated in a wide variety of nursing settings. Such consistency is curious, given the broad range of patients' needs for interaction likely to be manifest in such diverse situations. The findings of this study related to the length and frequency of nurse-patient verbal interaction confirm the picture presented by previous researchers in a variety of different nursing settings. Such findings must raise serious questions about the claimed importance of 'talking with patients' or communicating with patients in nursing care. Since it is not possible to communicate with patients or give them information or reassurance unless a nurse is actually in contact or interacting with a patient, the fact that nurse-patient interaction occupied such a small fraction of the nurses' working time must cast serious doubt on the impact that any nurse can have in terms of effective communication with her patients.

The effect of status or seniority of a nurse on the pattern of NPC was also explored. Although no statistically significant differences were shown, it was noted that overall interaction time and frequency of interactions decreased as seniority increased. The findings support the work of Altschul (1972) and Faulkner (1980). However, it is intuitively felt that this variation of communication patterns with nurses' status may well be related to the type of nursing task undertaken at different levels of training or status. This is an area which would merit further investigation. For example, Melia (1981) has suggested that student nurses are more sociable and 'concerned' and that the process of socialisation gradually erodes such concern as time in training progresses.

The pattern of initiation of conversation was also examined in this study. It was found that nurses verbally initiated 83.5% of all NPC. This compares with nurse initiation levels of 85% found by Faulkner (1980), 69% found by Altschul (1972), 71% by Cormack (1976) and 72% by Wells (1976). Again a consistent pattern of predominantly nurse initiation is confirmed, although it must be emphasised that in this study only verbal initiation was assessed and one important benefit of extending this study into areas of non-verbal communication would be the facility to study how far patients attempt to use non-verbal initiations to NPC. It has often been claimed, especially by patients, that nurses are "too busy to talk"(Anderson 1973). In the present study it was shown that neither the number of staff on duty nor the degree of busyness of a ward or nurse could be systematically related to the frequency/duration of NPC. Indeed there was a tendency for NPC to increase as the busyness of the ward increased and the number of staff on duty decreased. This finding seems, logically, related to work load. The fewer staff on duty, the greater the individual nurse's workload and, in consequence, patient contact will be. These findings reinforce the suggestion made by Stockwell (1972) that nurses do not interact with patients unless they have to undertake a specific nursing task. Indeed it was shown in this study that 78% of all NPC did occur in relation to a nursing activity or task for a patient. Confirming

this picture, Wells (1976) also showed that 75% of nurse-patient interaction on geriatric wards was related to physical nursing care.

These findings may well reflect the priority given to talking with patients or nurse-patient contact in its own right - that is, in the absence of a recognisable 'nursing' task or activity. If nurse-patient conversation is indeed dictated by tasks, then this potential interaction time must be used as fruitfully as possible. As will be shown, analysis of the content of NPC suggests that such time is not currently utilised imaginatively. For example, it was found that the focus of 55.2% of all the conversation was upon the actual nursing task being undertaken at the time. A further 15% were related specifically to 'intake' or 'output'. These findings confirm the work of Faulkner (1980) who found that 60% of conversations on medical wards focussed on the care being given at the time.

The analysis of the content of conversations in the data base also revealed that a very small number (1%) of conversations focussed on patients' emotions or feelings. This confirms the observations of Bond (1978), Macilwaine (1980) and Maguire (1978) that emotional matters tend to be ignored or avoided by nurses. Such findings again have implications for the type of nursing care a patient will receive. While it is not possible to establish, on the available evidence, whether patients would like to talk about emotional matters, it is clear that the content of conversations is heavily weighted towards practical and task-oriented matters.

A statistically significant difference was found in the amount of NPC occurring between nurses and patients with different diagnoses. As shown in Appendix 5(h) patients with a diagnosis of major abdominal surgery or vascular surgery received more interactions with nurses than expected, while those in many other diagnostic categories were involved in fewer interactions than expected. These data must clearly be viewed with caution because of the small numbers of patients in some of the diagnostic categories in the data base collected. However,

it does seem again, that patients with conditions requiring more practical nursing attention receive more interactions. This causal relationship is, at present, conjecture but it is an area which may merit further investigation.

The results also revealed that older patients received more interactions than younger patients. This is a finding which conflicts with that of Altschul (1972) who observed that younger psychiatric patients received more interaction time with nurses than older patients. However, the nursing needs of psychiatric patients are very different to those of patients in general wards. Again, it would seem logical, in view of the task related nature of NPC to attribute the increased interaction rate amongst elderly patients in this study to the amount of phsyical nursing care they would require. This logic is continued when the relationship between interaction rate and length of time patients spend in the ward is examined. Here it was found that patients who had been in hospital for more than one week interacted significantly more often with nurses than patients who had been in hospital for less than one week. Again it may be possible to explain this phenomenon if it is true that 'long-stay' patients require more physical nursing care than short stay patients. However, an alternative explanation may be that nurses develop more substantial relationships with long-stay patients - a factor which may affect the incidence of nurse-patient interaction. This is another area which would merit further investigation.

The findings of the quantitative analysis of NPC data point to a general pattern of nurse-patient interactions on surgical wards which is short, infrequent, limited in content to nursing or treatment matters and governed by the necessity of nursing contact. Two important points emerge from this picture. Firstly, it seems that this analysis confirms the collective findings from research in many different fields of nursing. Many of these studies have been carried out in areas which may be seen as more 'threatening' than surgical nursing-

areas such as ITU (Ashworth 1976), radiotherapy units (Bond 1978) and cancer wards (Maguire 1978). Yet the overall pattern of very limited NPC remains consistent. To this extent it may be that our knowledge of the paucity or limitations of nurse-patients interactions is now complete and it is likely that future researchers will not need to concentrate on the quantitative aspects of nurse-patient communication.

The picture which emerges from the quantitative analysis has implications in a second area and this relates to the kind of care which any given patient is likely to receive. As discussed at length in chapter 1, lip service is paid to the importance of all aspects of communication in nursing. The importance of communication, meeting patients' emotional needs and giving information and support are all elements of nursing which are advocated and supposedly taught. However, it seems clear that, given the limitations of nurse-patient verbal interactions described above, there will be little opportunity for a nurse to actually undertake any of these advocated aspects of nursing care.

During the course of the research each dimension of the analysis framework was related to overall communication ratings of a random sample of nurse-patient conversations. It is of interest that no relationships emerged between the factors explored in the quantitative analysis and the overall communication rating given to individual conversations. For example, conversations rated highly as examples of 'good communication' did not differ in terms of length, initiation, status of nurse etc., from those rated as low on communication. However it may be that other variables could be found which would relate to the overall assessment of communication - in particular different factors which discriminate between nurses as individuals. Therefore, future research might focus more specifically on the relationship of nurses' personal characteristics in the form of complex nurse profiles to their recorded interaction behaviours.

The quantitative analysis provided a clear picture of the structure and pattern of nurse-patient verbal interaction in the surgical wards studied. The next dimension of analysis - that of descriptors or attributes moves from a quantitative to a more subjective or qualitative approach to data analysis.

b) Analysis using descriptors and attributes

i) Method: Categories for description of the NPC data were generated out of panel members' perceptions of the conversations (see chapter 6, p.154). This kind of approach was felt to be an important one to investigate given that subjective impressions or judgements are often used, both in everyday life and in nursing. Certainly much of the assessment of nurses' interpersonal skills is currently undertaken in this manner.

In practice the use of attributes for describing the NPC proved to be a sobering experience. Firstly the sheer magnitude of the task was considerable - from the generation and refinement of the descriptors through to the analysis of the data collected. Therefore, the process proved to be both complex and time-consuming. Perhaps most importantly in the context of considering such analytical methods in future research, are the demands that the process of generating descriptors and using them for rating makes on the participants in any such exercise. However, the method proved interesting in that a surprising degree of consensus was achieved among large numbers of untrained raters. It is questionable, though whether this approach can usefully be developed to illuminate aspects of nurse- patient verbal interaction in a way which could be developed for general use, for example in nurse teaching.

The results of using this dimension of the analysis framework to describe the NPC data are described below.

ii) Results: It was found that the 20 untrained raters were able to code the data with reasonable consistency. The consensus picture built up of the NPC data was that nurses' interactions with patients were most commonly described as being 'friendly' 'superficial', and 'stereotyped'. Some attributes were more consistently coded than others - the least consistent was the attribute 'assertive' - 'unassertive' and the most consistently rated was 'friendly' - "unfriendly'. When the relationship of all 11 attributes to overall ratings of communication was examined it was found that all but one discriminated significantly between examples of communication which had been rated as 'very good' or 'very bad'. Again the attribute which failed to discriminate was that of assertive- unassertive. The fact that there seems to be a systematic relationship between the raters' detailed subjective assessments (in the form of a range of attributes) and this overall or global rating of the nurses' communication effectiveness may again have important implications for further research in the area of perception and assessment.

An interesting pattern was revealed into the apparent structure underlying raters' attempts to perceive and describe NPC data. The principal component analysis undertaken in this part of the study (see chapter 7, p.185) generated three factors - labelled 'warmth', 'distance' and 'style'. The factors of warmth and distance bear a superficial resemblance to the established psychological dimensions of'warmth-coldness' and'dominance-submission' (Lorr and McNair 1965). Moreover it has been suggested that there may be a strong relationship between perceptions, attributes and verbal behaviour. Borgatta (1960) has found that factor analytic studies of peer assessments reveal two consistent factors related to'assertiveness' and "friendliness'. His 'assertiveness' dimension may perhaps be linked with the third factor (style) which comprised the attributes of precision and assertion.

Mehrabian (1972) examined elements of verbal and non-verbal behaviour which are associated with differently perceived attitudes and behaviour. He found that verbal behaviour related to 'warmth' included an overall high level of verbal interaction, the use of verbal reinforcement and

frequent questions. Eisler et al (1975) found, perhaps unsurprisingly, that highly assertive individuals spoke at greater length than average, used less verbal reinforcement but also 'hesitated' more frequently. As will be discussed later in this chapter, it was also found in this study that overall ratings of individual conversations can be related to identifiable patterns of encouraging or discouraging verbal strategies.

It has also been suggested that the 'dominance-submission' dimension resembles the 'control-autonomy' dimension identified by Schaefer (1959) and the 'superordinate-subordinate' factor of Triandis et al (1966). In the current research the subjective ratings of a random sample of NPC data revealed that nurses responses were perceived as patronising. superficial and stereotyped. This factor was labelled 'distance' but it may be related in some way to the established dimension of 'dominance or control,' with the nurses' verbal behaviour effectively acting as a 'controller' of patient's verbal behaviour. While this is clearly an area which may merit further investigation, there is insufficient evidence at the present time to firmly establish the existence of stable and identifiable dimensions in nurses' verbal responses to patients. To do this it would be necessary to continue exhaustive analysis of NPC data, progressively defining and redefining a range of attributes and then identifying markers or definers from stable factors. When this stage has been reached it may be valuable to develop factor scores for individual nurses or patients and relate these to other identifiable variables or characteristics.

Further study of this kind could make an important contribution to our understanding of the basis of subjective perceptions and attitudes in nursing and NPC in particular. In addition, the current pervasive use of subjective reporting on aspects of nursing (such as in staff evaluation and student assessment) make this a potentially important area for further research. However, it is emphasised that the attempts made in this study to use descriptors or attributes in the analysis of NPC data represent only the first steps in thoroughly analysing and describing all aspects of a nurse's communication with her patients.

All that it is possible to say is that the raters in this study were able to reach a reasonable agreement on subjective ratings of other nurse's verbal behaviour. No assumptions can be made about the substance of what was judged.

c) Analysis of data using verbal interaction categories

i) Method: This stage of the analysis process involved two separate activities. A verbal interaction categorisation system was devised as discussed in chapter 6, p163 and the analysis process using this system involved two separate activities. Firstly all nurses' responses or turns in the data base were scrutinised and all instances of the categories of encouraging or discouraging behaviour were identified. Secondly, all patient responses or turns were scrutinised and any instances of direct questions, indirect questions, statements or cues were identified.

As a method of analysing and describing NPC data, this was felt to be amongst the most rewarding of those used in the study. It must be stressed, however, that the work carried out was essentially seen as the first step in developing a tool for analysing verbal behaviour and strategies. The aim of this approach was not to produce a comprehensive categorisation scheme in which all elements of nurse-patient verbal interaction could be classified but to develop a method which would facilitate the description of certain patterns of verbal behaviour. As far as this aim was concerned, the approach proved reasonably satisfactory, although it clearly requires extensive development and refinement. For example, there is always some blurring of the boundaries between what is labelled as a 'direct' question and those which may be 'indirect'. The solution reached by other researchers (e.g. Candlin et al 1974) in this situation has been to try to make the definition of 'direct' as tight as possible, excluding any question which in any way indirectly alludes to a problem. In practice this is a very difficult thing to define but relatively easy to recognise. Appendix 4c provides a number of illustrations of this. For example, in Appendix 4c, page no. 284, this tight definition of 'direct' questions was used and the patients' questions or statements

0374, 0375 and 0376 were coded as indirect questions. He asks "You've got that, have you?" "You are not giving me tablets when I go are you?" In order to be classified as asking direct questions he would have had to have phrased the questions as "Have you got that?" and "Are you giving me tablets when I go?" The examples are given to illustrate the relatively fine distinctions that have to be made by coders in these circumstances. Other types of indirect statements or cues can present different problems. While there is little problem in identifying the 'indirectness' or 'subtlety', it is,a priori difficult to be sure that these do represent 'cues'. However, again in practice this is something that coders did not find difficult. For example, in Appendix 4c, page 310 , the patient said (0025) "Well, they told me not to go till I've seen the doctor". Although this is technically a statement, coders agreed that it was an indirect cue - that is the patient made the statement in the hopes of getting information or an appropriate response from the nurse. As can be seen from the way in which this conversation develops, the patient did seem to have a need for further information.

Thus the essential distinction is felt to lie between direct questions on the one hand and any indirect, implied or subtle statements or questions - which in this study were labelled as 'cues'. It could be that if this classification system is used in further research or in teaching, sub-classifications of the 'cue' category could be discarded.

Some methodological problems arose in the development and use of the other dimension of the verbal behaviour framework for analysing nurses' responses in NPC. Attempts to distinguish between 'appropriate' or 'encouraging' and 'inappropriate' or 'discouraging' closed questions were abandoned early in the development stage. Coders encountered few difficulties in identifying and agreeing on types of question, mirroring and encouraging. However, the distinction between appropriate and inappropriate responses to patients' direct questions or cues proved more difficult and inter-coder agreement dropped to 83% in the case of positive response to questions or cues.

Before these classifications are used in further research it would be necessary to refine them and redefine them, possibly using an approach which would provide a further breakdown of identifiable types of verbal behaviour - both positive or encouraging and negative or discouraging.

The use of the verbal interaction categories as an approach to analysing the NPC data has been extensively discussed because this method may have potential for use in further research and in the teaching and assessment of verbal interaction skills. In many respects this method gives the most clear-cut description of NPC data. Coder training proved easy and ratings are amenable to both quantitative as well as qualitative evaluation. It is possible to obtain an almost tangible 'feel' for the conversational data from the analysis. It may be profitable to develop this approach further both by extending and refining the categories of behaviour and by using video-taped material for this process. By doing this it may also be possible to extend analysis to recognisable and definable aspects of non-verbal communication.

ii) Results: The overall findings which emerged from applying the verbal interaction framework to the NPC were as follows. Identified behaviour was predominantly 'discouraging'. As described in chapter 7, nurses' questions to patients were overwhelmingly closed or leading. Open questions, when used, were often 'blocked' - that is, they were not used skilfully to encourage further conversation. Nurses were shown to use few strategies which reinforce patients in conversation and the tactics of mirroring or reflection as a means of encouraging patients to converse were also rarely identified.

The concept of skill used in this context is interesting. A skill is, by definition an activity which can be learned and practiced. In this sense it could be argued that the nurses' use of discouraging behaviours was profoundly 'skilled'. However, it is doubtful whether such strategies benefit patients in terms of meeting their needs for information and support.

Perhaps one of the most striking findings which emerged from this study was the extent to which patients' questions or overtures to nurses tended to be indirect and subtle rather than direct. Approximately 80% of all patients' questions or statements were coded as indirect cues. Yet coders generally agreed that these cues were clearly intended to convey a message or a request for information to a nurse. Thus the distinction between direct questions and 'cues' is an important one, given that the purpose remains the same - ie to gain information or a response. Moreover, this finding of predominantly indirect or subtle cues from patients,if generalisable, clearly has important implications for the way in which nurses should learn to meet their patients' needs. Above all else, it implies that nurses must become skilled at recognising the indirect or subtle cues. Moreover, it may be fruitful to examine the reasons why patients appear to adopt this indirect approach in their dealings with nurses. Future research studies might investigate whether patients are aware of using this approach, whether nurses actually recognise these cues and whether it is a phenomenon which occurs when patients interact with other health professionals such as doctors. As has been discussed previously, it can be assumed that patients ask direct questions or use the indirect 'cue' approach for a reason - usually in order to obtain information, guidance, support or simply further interaction. The way in which nurses respond to such questions and cues is, therefore, of some interest. It was found that approximately half of the patients' direct questions and cues received a negative or discouraging response from the nurse. That is, the nurse ignored or evaded the question, changed the subject or responded with a cliché or stereotyped statement. An appropriate or encouraging response was one in which the nurse responded appropriately to the question or cue by giving information, or encouraging the conversation to continue on the patients' choice of topic. These findings again suggest a certain lack of skill on the part of the nurses. However, it can also be argued that the nurses were displaying a much practiced skill of evasion and discouragement. Such skills have been described by Heron (1975) as 'degenerative' and have also been identified by other researchers. For example Wilmot (1975) distinguished between

'confirming' and 'disconfirming' skills. He defined 'confirming skills'as those tactics which positively encourage communication whereas 'disconfirming skills' are tactics which can be described as tangential, irrelevant, impersonal and incongruent. The use of these tactics discourages communication.

As discussed in chapter 3, few studies have been undertaken which analyse the content of nurse-patient conversations and in consequence only limited comparisions can be made with the findings of this study in relation to nurses verbal behaviour strategies. Phelps Matthews (1962) found that only eight out of 122 nurses in her U.S. sample used encouraging responses when in conversation with patients. Also in the U.S., Reiter and Kakosh (1963) analysed nurse-patient conversations and found little evidence of nurses using encouraging tactics but high levels of socialising and rejecting behaviour (p 77). In a more recent study of surgeons' conversations with patients who had lumps in their breasts, Maguire et al (1980) analysed the doctors verbal responses to patients' questions or cues. They found that only 5% of the cues were met with a direct or encouraging response. Twenty five percent met with negative responses, eg. 'There's no need to look so worried' or 'You've come to the right place'. Maguire et al claim that 70% of all cues went unnoticed or were not responded to.

Thus, there is only a limited amount of relevant or detailed evidence to support the findings of the present study but there is a sense in which a great deal of the work on nurse-patient communication is confirming. For example, studies such as those by Stockwell (1972) and Wells (1976) point to nurses' general lack of communication with patients. Moreover, the many studies of patient satisfaction undertaken over the past two decades (Cartwright 1964, Raphael 1969, Reynolds 1978) all demonstrate that patients are consistently dissatisfied with the communication aspects of their care. It is tempting to suggest a causal relationship between the nurses' verbal behaviour observed in the NPC data and patients' inevitable dissatisfaction with communication.

As with the other dimensions of analysis carried out in this study the findings of the verbal interaction analysis were related to the overall ratings made of a random sample of NPCs. As discussed in chapter 7, p 198 a clear pattern emerged. It was found that NPCs rated as 'good' on overall communication contained a few instances of encouraging behaviour and few discouraging strategies. On the other hand conversations rated as 'very poor' on overall communication contained no encouraging behaviour and a great deal of discouraging behaviour. This pattern was quite marked and indeed the increase in negative or discouraging behaviour in 'poor' conversations was statistically significant. Thus in this sample it was the absence of discouraging behaviour or strategies rather than the presence of encouraging behaviour which appeared to discriminate between good and bad examples of NPC However, this finding may be a function of the generally low standard of communication in the sample; indeed the majority of raters tended to give average to poor ratings to the conversations.

The case for the use of specific verbal interaction skills in nursing was argued in chapter 1. The positive and appropriate use of certain verbal strategies or techniques such as open questions, encouragement, and mirroring, has been shown to result in outcomes which could be beneficial to patients. Conversely the use of 'degenerate' strategies means that patients' needs for information, social contact, support and reassurance are less likely to be met. The findings from this study show minimal use of verbal interaction skills such as questions which encourage, facilitate and enable patients' needs to be met. The fact that open questions were rarely used will have inevitably imposed limitations on the amount of information a nurse could gain from a patient. This, in turn, has implications for the type of care a patient will receive in a variety of nursing situations. For example, it was found that open questions were rarely used in NPC when patients were being admitted. The nurses were unwittingly restricting the amount of useful information they gained - and in consequence - limiting the extent of their assessment of the patients and the identification of their needs. The overall lack of open questions has already been discussed

(chapter 7, p188) but there are clearly many times during nursing care activities when it is necessary to establish what a patient knows, how he feels and what he wants. The findings from this study suggest that patients were rarely given the opportunity to express themselves in this way.

Likewise, the continual use of closed questions and leading questions can act as a subtle but effective barrier to all but superficial exchanges. It could be argued that the use of leading questions can result in misleading and even dangerous information being given. This may be particularly true in situations such as admission, pre-operative preparation and during the observation and monitoring of patients, where failure to elicit accurate information could result in inappropriate and inadequate nursing care. For example, in chapter 7 p194 an extract from a conversation between a nurse and a patient who was being prepared for surgery was given. During this the nurse asks several leading questions including (N 2441) "And the doctor showed you the consent form?" A question phrased in this way is likely to elicit a monosyllabic and acquiescent answer. The patient did in fact answer "Yes" (P 2138) but then continued "I signed it". However it can be seen that the use of leading questions in such circumstances could be potentially dangerous. It would be possible to make assumptions based on responses to leading questions which may not be accurate.

It is suggested that there is a relationship between skilled questioning on the part of the nurse and the ability to identify and meet patients' needs as individuals. The findings of this study should lead us to challenge the notion that the nurses were giving individualised care. Research is needed to establish whether there was any purpose or value in nurses asking many of the questions they did when, in this study, the nature of the question indicated that the nurses did not want, or were not expecting an answer (see chapter 7 p188). It is also necessary to question the value of teaching that nurses have a health education role. The findings of Faulkner (1980) and the present study suggest that nurses do not recognise or respond to opportunities to act as health educators. For example, in this study the following conversation took place while a 3rd year student nurse was 'admitting' a patient.

(0736) N: Are you on any drugs at all for your bronchitis?

P: Drugs? Oh no.

N: You don't take anything for it?

P: Only some 'Anadin' if my head's bad..... I can't take aspirin you see because of my stomach.

N: What does the aspirin do to you?

P: It makes my stomach turn sour, so we never buy aspirin, always 'Anadin'.

N: Are you allergic to any foods at all?

In this example the nurse failed to respond to the patient's information that he took 'Anadin' instead of aspirin. It is, of course, possible that the nurse was ignorant of the nature of 'Anadin' but the fact remains that an opportunity for health education was missed.

Examination of nurses' verbal behaviour and strategies also revealed the frequent occurrence of negative responses to patients' direct questions or cues. Again this finding raises serious questions about the standard of care a patient will receive. The relationship between meeting patients' psychological needs and needs for information and their recovery was discussed at length in chapter 2. However, it is apparent from the examples cited in chapter 7 that the nurses in this study often failed to respond to patients directly or indirectly expressed needs. At the present time it is not possible to determine whether the nurses failed to observe or listen or hear or whether they did in fact observe or hear but subsequently blocked further interaction by adopting a negative response. Whatever the mechanism, the result is the same - patients' needs are not met. This point can perhaps be illustrated most vividly by an illustration taken from the video-taped interaction material. Here the patient was being given his premedication by a staff nurse, prior to having an angiogram done under local anaesthetic.

(3426) N: Just wriggle your toes, it's all right

P: That's all you do?

N: Yes, wiggle your toes.

P: Last time I had this, I had a general anaesthetic.

N: Did you? General anaesthetic? Well.....

P: Yes, they said you'll never stand it without a general anaesthetic.

N: No? O.K. now don't get out of bed now huh? All right?

P: No...

N: And we'll be along to take you very soon. We'll draw the curtains (does so) now so you can sleep. All right see you later then Mr B.

This patient was clearly anxious about having the procedure done under local anaesthetic and was expressing a need for reassurance and information. However, his need was not met, the nurse changed the subject and left the patient, with his anxiety, behind closed curtains.

In summary, the pattern of nurses' verbal interactions identified through analysis of the NPC using the verbal behaviour categories presents a sombre picture. However, it must be emphasised that the analysis only captures a small element of the 'whole' of any nurse-patient interaction. On the other hand, this selective approach to analysis allows the researcher to deal with manageable amounts of data. It may be that further research should concentrate on a multiple selective approach to analysis - thus building a complex picture of the dynamics of interaction. Certainly the analysis of verbal interaction based on selected elements of verbal behaviour generated illuminating information and it may be that the very rough and ready categories developed in this study could provide a useful starting point for further work in this area. In particular it may be possible to develop a limited categorisation scheme for use in the teaching and assessment of verbal and (potentially) non-verbal skills in nursing. Future research could also exploit existing data as well as new, video-taped data and this possibility is discussed further in the final section of the chapter.

d) The use of an overall rating scale

i) Method: As was described in chapter 7, p.194, raters were asked to give a global rating to each conversation on a 5 point scale which

ranged from 1 - very good communication to 5 - very poor communication. As a method of producing a subjective assessment it proved relatively satisfactory. Coders found little difficulty in using the scale, although points 3, 4 and 5 on the scale were used much more frequently than points 1 or 2. This pattern was found to be true of all groups of coders - nurses and non-nurses. Perhaps the most notable outcome of using this simple scale was the high level of consistency with which conversations were rated. Given this consistency (and with the benefit of hindsight) it may have been valauble to ask raters for specific information about their reasons for rating each conversations as they did.

ii) Results: In general the conversations in the random sample were given low communication ratings by all coders. This finding is consistent with the impressions and descriptions given by the original panel members when asked to describe a sample of NPC. An additional noticeable finding was that of the high degree of consensus both within groups of coders and between groups of coders related to whether nurses' communication with patients was seen as good or poor.

However, the findings from gathering overall ratings have limited value when viewed in isolation. In order to explore the implications of these findings it is necessary to examine the relationship between the overall rating given to a conversation and the other dimensions of analysis that were undertaken. In this study no links were found between the quantitative dimension of analysis and overall ratings. However, a relationship was demonstrated between overall ratings and the way in which NPC was described. As discussed previously most of the descriptors discriminated between NPC rated as 'good' or 'poor'. Moreover conversations rated as 'good' also contained more examples of encouraging or positive verbal behaviour and significantly fewer examples of negative or discouraging behaviour than conversations rated as 'poor'. Thus it is possible to make tentative links between different levels of analysis and between

subjective and objective measures. The pattern which emerged has features in common with the model suggested by Mehrabian (1972) which relates subjective perceptions of 'warmth' to elements of social interaction. It may be fruitful in future research to examine the relationship between overall subjective assessments of nurses' interaction skills with different identifiable elements of verbal (and non-verbal) interaction behaviour. Such work would be of value in the further development of models for the teaching and assessment of communication skills in nursing.

8.3 Who controls nurse-patient interactions?

The concept of 'control' as an important element in interactions and conversations is widely recognised. Labov and Fanshel (1977) define interaction as, "action which affects (alters or maintains) the relations of the self and others in face to face communication" (p 59). The idea that control or manipulation is important is, therefore, implicit. Brown and Gilman (1960) are more explicit and claim that the dimensions of power (control) and solidarity are fundamental to the analysis of all social life (p 253). Coulthard and Ashby (1976) examined the dominant role played by doctors in doctor-patient interactions and many researchers have analysed and documented the manner in which teachers 'control' interaction with their pupils (Barnes 1969, Stubbs 1976). However, both doctor-patient interactions and teacher-pupil interactions are situations where the role of each participant is clearly defined. In addition the purpose of these verbal interactions can often be identified. The teacher will want to gain and give information and the doctor to make a diagnosis, give advice or prescribe treatment. As discussed in chapter 1, verbal interaction is central to many nursing activities, but the purpose or proposed outcome of such interactions is not always clear-cut.

There is some evidence from observational studies that the nurse tends to be dominant in nurse-patient interactions (Duff and Hollingshead 1968, Stockwell 1972, Quint 1965 a). At the end of chapter 2, a number of questions were posed related to whether or not nurses are dominant or use 'control' in nurse-patient conversations. The extent to which

the different dimensions of analysis of NPC have thrown light on these questions is discussed below.

Firstly it was shown through the quantitative analysis that nurses' conversations with patients on the surgical wards studies tended to be very short (10 turns or less) and relatively infrequent. This pattern imposes inevitable limitations on the nature of any NPC which occurs. The fact that length and frequency of NPC was unrelated to other factors such as the nurses' level of experience and the busyness of the ward accentuates the limitations.

A strong relationship was demonstrated between the occurrence of NPC and a pre-existing nursing task or activity. Put another way, patients are more likely to have a conversation with a nurse if they require 'nursing task' time. However, the topics of conversation were also shown to be task or treatment-related - regardless of whether a nursing activity was actually taking place. The task as a determinant or controlling factor in NPC is an important concept, for tasks can in turn be influenced by factors such as the patient's diagnosis, age, length of stay and time of day. This link between task and talk need not necessarily be seen as undesirable. Altschul states that "nurses may need the pretext of physical care to spend time with the patient or patients may find it easier to talk to nurses while they are receiving physical care" (Altschul 1972, p 126). Although speaking of psychiatric nursing this statement may well also hold true for general nurses and their patients. The difference is that on general wards, nurses already have innumerable task based opportunities to interact with patients, yet the data from this study suggest that the opportunities are not always used appropriately. Instead a clearly defined pattern of short and superficial interactions emerges - interactions which are unlikely to benefit patients by providing either extended conversations or emotional support. Moveover, the overall content of NPC was seen to be superficial and limited to task or treatment topics regardless of the context. This interest shown by nurses in the task-related topic could be described at times as obsessive. For example, in the following conversation

the fact that the patient (an old man of 77) misunderstood her, did not deter the nurse in her pursuit of information for completing the fluid balance charts.

(0478) N: Did you have a cup of tea this afternoon.

P: Er, I've had nothing.

N: Oh dear!

N: Can you remember having anything to drink this afternoon?

P: I'll say yes to the cup of tea.

N: You did have a cup of tea?

P: I'll say yes to that.

N: You think you did? Anything else you can remember? How much orange did you drink?

P: About half that glass.

N: Is that all, did you have soup? You did, didn't you? OK.

P: Is that intake and output?

N: Yes, to see how you are getting on.

This is just one of many examples found in the NPC data which suggest that it was the task basis of interactions which often determined the nature of the interaction. It may be that, consciously or unconsciously, the task is 'used' by nurses to contrd the scope of any conversations which take place with patients. The tasks most commonly associated with NPC were drug rounds and matters related to fluid intake and output, and it may be useful to consider educating nurses to exploit this phenomenon by consciously using such task-related time as positive conversation time when possible.

The majority of conversations were initiated by nurses and in most of these the nurse also made the closing utterance - or as Coulthard and Ashby (1976) said "had the last word". It has been suggested that the pattern of 'opening' and 'closing' conversations can denote the dominant participant - the person who initiates and closes being 'in control'. (Schegloff and Sacks 1973). In addition, analysis of the NPC data revealed a variety of verbal tactics or strategies which were used by nurses. It is suggestedthat these may also exert a subtle

form of control in nurse-patient interactions. An example of such tactics is the use of 'orders as questions' as a means of manipulating patients' behaviour. Nurses frequently phrased statements as questions, such as "Can I take your temperature, please?" or "Are you going to get out of bed this morning?" There is an implicit understanding that the temperature will be taken and that the patient will get out of bed but the question is asked nevertheless. Most patients appear to accept this control over their behaviour, although occasionally someone rebels.

(2008) N: Mrs B..? Are you going to have a bowl to wash?
P: No I get up early in the morning and have one.
N: You're not going to wash your face and hands this evening?
P: Oh I've washed me face and hands.
N: Well. I'll give you a bowl when all the visitors have gone.
P: I've washed me face and hands!
N: Oh you've done it, OK, fine.

In this instance the nurse gave up - indeed this patient never washed in the evening and only sometimes in the mornings!

The tactic of phrasing orders as questions is similar in some ways to the strategy often observed of treating patients in a kindly but patronising way, rather as if they were children. This phenomenon has been described by Berne (1974) in his role classification model of transactional analysis. Berne suggests that there are three possible roles or 'ego-states' which can be used in human communication: those of 'adult', 'parent' and 'child'. The 'adult' acts rationally, logically and independently. The 'parent' role involves talking down to people and belittling them and the 'child' role involves passivity and reverting to ways of dealing with the world which were practised in childhood. Berne also suggests that individuals play games with these roles in order to achieve certain payoffs, although this behaviour

need not be conscious. Skilful use of the 'parent' role by nurses, for example, has been found to result in the manipulation of patients to produce certain desired responses - particularly in the form of passive childlike behaviour (Levin and Berne, 1972).

Although the NPC data were not subjected to systematic analysis using Berne's framework, there were many examples of conversation which could be classified under the heading of nurse as 'parent' and patient as 'child', as in the following conversation where the patient (a 54 year old lady) had knocked over her water glass while getting out of bed. The nurse heard the glass break.

(2361) N: Hang on. Was that you? Oh dearie me.

P: I'm sorry.

N: Oh, don't worry, just come away and we'll get that cleared up. That's seven years bad luck. Don't go near the sink. We'll have to give you a plastic cup next time!

P: I'm so sorry.

N: That's alright, don't worry about it lovey. These things happen. More distressing to you than to to us. We just clear it up.

P: I feel terrible.

N: No, don't worry, it's all over and done with now. Are you going to go out for your walk outside. Just a little one? It's lovely and sunny out there.

As has been emphasised, the impression given by the nurse of being a kindly or patronising parent talking to a child is purely subjective. However there are some tangible aspects to these kinds of interactions which may merit careful analysis in future research. These include the frequent use of diminutives and adjectives such as "little", "small", "nice", "wee" and "tiny". Further studies could investigate nurses' awareness and motivation for the use of such terms as "litile walk", "nice wash", etc, instead of "a walk", "a wash". For example:

(1528) N: Shall I take your nightie off and give you a nice little wash. That's it. Just pop your head through. Oopsy daisy.

Using Berne's analysis it is possible to argue that the use of such language effectively gives the nurse control by encouraging the patient to behave passively and take on the 'child' role.

Another frequently recorded verbal habit or tactic was the use of the 'royal we' in many situations when nurses were in fact referring to just one person. In the following example the patient was a 79 year old man and the nurse was giving him a suppository.

(0805) N: Mr R. Hello dear. I'm just going to give your back a rub OK? And pop your suppository in.
P: Over here?
N: Yes, towards there. OK? OK, we won't be long. OK. I'm just going to pop the suppository in. That's it dear. We need to sit up a bit dear don't we.
P: Yes
N: Here we go.
P: That's better.
N: OK
P: Thank you.

As the nurse was alone with the patient, the use of the word 'we' was in all four cases unnecessary. It has been suggested that the use of 'we' helps the nurse to distance herself and remain detached when dealing with cancer patients (Quint 1965 a). However, it is a tactic or habit which was used by almost all the nurses studied and in relation to a wide variety of patients. If it does in fact act as a distancing tactic then it would also act as a barrier to involved conversation with patients.

The above conversation also illustrates another verbal habit or strategy which was frequently identified - that is the routine use of phrases such as "alright" and "OK ?". These were used so commonly and consistently that it is difficult to imagine that nurses were consciously doing so. What is interesting is the potential effect that these words can have upon NPC. When studying everyday conversation Sacks et al (1974) found that such phrases can represent attempts to pre-close conversations. Their use signals to the other participant that the speaker wishes to change the subject, or end the interaction. They can be powerful agents of control simply because through them it is possible to convey lack of interest, busyness or lack of time to listen. There are also instances where the trivialising and 'blocking'effect of such phrases could be construed by patients as unkind or uncaring. For example, the following extract from the data involved a Spanish patient, aged 37, who had been admitted to hospital with severe renal colic. The nurse was sitting by his bed doing the 'admission history'. After checking his name and address and next of kin she said;

(0763) N; Right, does your father know that you are here?
P: My father? No. My work know.
N: Your father lives in Wimbledon?
P: No, my father lives in Spain.
N: Well, they've got this wrong then.
P: I am alone
N: You are alone?
P: Yes, I am alone.
N: OK

The nurse then filled in the paperwork in silence for about 6 minutes. The only thing the patient said during this time was the word 'alone' once more. The nurse did not react. Although this extract may seem dramatic, it does illustrate the potential power and influence that

simple habitual phrases, such as "OK" may have on the flow of an interaction. As with the other verbal habits or tactics discussed above, it is likely that they are used quite unconsciously and without awareness of their potential effect on conversation.

Analysis of the NPC data using the verbal interaction framework revealed that the nurses studied used more discouraging or negative verbal responses than encouraging or positive responses. It is suggested that the frequent use of discouraging verbal strategies will control or limit the scope of conversations between nurses and patients. Many examples of these strategies were given in chapter 7 and include 'blocked' open questions, the repetitive use of closed and leading questions and a variety of negative responses to patients' direct questions or cues. Such responses include overt evasion through change of topic and ignoring the question and more subtle strategies such as the use of clichés or stereotyped responses. Ruesch (1957) has suggested that such negative tactics and responses effectively block communication by depriving the person who sends a message the favour of being understood. If the response does not 'match' the stimulus in terms of language content or emotional content, it will be recognised as tangential. Ruesch argues that by not responding appropriately, the respondent in an interaction is making a bid for control.

As discussed previously, given the current state of knowledge it is only possible to speculate about the degree to which nurses are conscious or aware of these tactics. Melia (1981) suggests that nurses are not given adequate information about patients and hence are "nursing in the dark" (p 217). In consequence they develop strategies such as those outlined above for coping with the information gap. While there is doubtless some substance to the idea that nurses often have limited information about patients, this lack of information does not adequately explain the majority of evasive or negative responses to patients' questions or cues. It should always, in theory, be possible

for a nurse to acknowledge a patient's question, admit a lack of knowledge and then try to gain the necessary information. Moreover, in many instances in this study the patients did not always require complex information. Indeed it was often the case that the nurse was so effective in her blocking or negative responses that the patients' need was never established. Moreover, several instances were identified where nurses did have access to information about the patient. The problem seemed to be one of unwillingness to take responsibility for conveying that information to the patient. For example, in the following interaction a staff nurse was giving a bed bath to a 71 year old man who had been admitted for investigations.

(0868) N: Now sit up and push with your good leg. Now a bit more....

P: That's better.

N: I'll just undo your things at the back so you can have a jolly good wash because you might be going to theatre today, you see ...

P: Do what?

N: You might be .. well... the doctors have told you haven't they?

P: What? They haven't told me, no...

N: Well, not definitely no.. but they told you you might.

P: Mr. W. said he'd make a decision this morning.

N: Yes, that's right.

After this interaction the nurse left to do something else, leaving a potentially concerned and confused patient. Earlier in the morning she had been given the information that the patient's operation would be fitted in at the end of the list that day, if there was time. This would seem to be reasonable and important information for the patient to have access to. In fact he was left in a state of uncertainty and suspense until lunchtime when he was told not to have any lunch. He then demanded to speak to Sister who explained the situation to him. What is interesting about this example is the fact that the information in question was a) available and b) not threatening. Yet this qualified nurse did not cope with the situation which arose. In theory, it is

possible to skilfully avoid difficult situations like this by asking the patient what he knows but this was a tactic rarely identified in the NPC data.

The example discussed above raises important questions about the role of responsibility and accountability in nursing. It would be valuable to investigate nurses' anxieties, feelings and attitudes in relation to giving information to patients. It is possible that more anxiety could be generated through anticipating problems than from actually confronting difficult situations. Melia (1981) describes dramatic situations and difficult questions of the "Nurse, am I going to die" variety as merely a part of nursing folklore and suggests that they don't happen in practice. Certainly examination of the data from this study did not reveal any overtly dramatic or threatening situations. However, on the basis of examining the data it is suggested that nurses may learn to comprehensively restrict, control or limit verbal interaction with patients in order to avoid the problem of coping with difficult situations or questions. In addition, reticence to give information may stem from a desire to avoid taking personal responsibility or to avoid being accountable for the words that are spoken to a patient. If this is the case it could provide a plausible explanation of the overall superficiality of nurse-patient conversations found in this study. Further research is needed to investigate the possible reasons for such evasion in nurses and, perhaps more important, to investigate what happens when nurses do not employ strategies which limit or inhibit conversation.

The emphasis, so far, in this section has been upon the evidence which suggests that nurses maintain the focus of control in nurse-patient conversations. Certainly the data from this study do give a general picture of patients as the passive participants in NPC. This is evidenced by the small number of conversations initiated by patients. the small number of direct questions or further questions asked by patients and a general failure to persist in any attempt to continue a

a conversation which has been 'blocked' or discouraged. It is, of course, not possible to determine whether this behaviour is a simple reaction to the nurses' dominance in NPC or whether it is deliberate. However, there are several possible explanations for the passive patient role in NPC. The passivity and increased dependence which emerges when an individual adopts the 'sick role' has been well documented (Parsons 1958). It is likely that this passivity could be manifest in verbal interactions with nurses as well as in terms of physical demands.

A relatively unexplained area, but one that is related to the concept of role, is that of patient expectations. Patients may feel that they are 'expected' to behave in a certain way or that they can only 'expect' so much contact or interaction because nurses are too busy (Skipper et al 1963). Certainly patients may fear unpopularity if they do not conform to the written and unwritten rules in a ward. Stockwell (1972) found that unpopularity was related to long stay patients and patients who asked a lot of questions. The concept of patient unpopularity was not one which was explored systematically in this study. However, it does seem, subjectively, that nurses' conversations with 'unpopular patients' differ in some way from those with other patients. For example, in the conversation below the patient was a man of 69 (an ex school teacher) who was disliked by all the nurses on the ward.

(0885) P: Nurse, my groin has flared up.

N: Yes, the doctor's coming back to see you this morning.

P: So will you tell Sister now that I am in intense pain.

N: You are in pain?

P: I'm in intense pain.

N: I'll give you some tablets for that.

P: No

N: Why not? don't you want that?

P: I want the thing reduced.

N: Don't you want any painkillers though.

P: Yes

N: You do (goes to get tablets). There you go. OK?

The patient seemed assertive and demanding but was also in great pain from his hernia. This conversation differs from the 'norm' in that the patient initiated it and tells the nurse what he wants. Interestingly the outcome follows the predictable pattern. The nurse closed the conversation with a sterotyped or habitual phrase - "there you go, OK?"

In further research it may be possible to systematically analyse differences (if any) in conversations between nurses and 'popular' or 'unpopular' patients. It may also be found that the focus of control or degree of patient passivity differs between the two groups.

Overall, the data from this study do offer some tangible evidence to support the idea that it is the nurses who largely maintain control of nurse-patient verbal interactions. This in turn supports the hypotheses of other researchers (Menzies 1960, Quint 1965a and McIntosh 1975) that nurses control and limit their contact with patients. However, we cannot dismiss the possibility that patients exert some form of passive influence on NPC by consciously or unconsciously maintaining their distance. Thus while nurses fail to encourage communication or fail to communicate effectively, patients may continue to be passive - preferring this to the risk of being labelled difficult or unpopular. This is clearly an area which merits further investigation.

8.4 Do nurses deliberately limit their interaction with patients?

In the previous section of this chapter an attempt was made to identify the focus of control and the key influences in nurse-patient conversations. Several strategies were described which, when used by nurses, can effectively limit the duration, depth or substance of such conversations. As stated, it is not possible to determine whether these strategies are used deliberately. So far, researchers have principally offered their opinions on this point and they differ.

Menzies (1960) believes that nurses avoid involvement - and by extension avoid involved conversations with patients - subconsciously. She argues that this is necessary in order to reduce anxiety and stress. Kratz (1974) described a continum of nursing care from 'diffuse' to 'non-diffuse' or 'direct'. In her study of community nursing, Kratz found that nurses did not value, or see as important, diffuse care. Talking with patients might be seen by nurses as diffuse and unimportant and may in consequency be consciously avoided.

There is certainly some evidence that nurses are aware of using avoiding strategies when talking with patients (Melia 1981; Fielding, personal communication). In Fielding's study nurses on geriatric wards were asked to talk through and 'explain' a previously recorded conversation with a patient. Some of these nurses did describe deliberate or conscious tactics they had used to avoid certain topics or lengthy conversations. While investigating nurses' inferences of patients' suffering in the U.S., Davitz and Davitz (1981) found that ".....nursing behaviour was focussed much more often on the physical condition of patients rather than on their psychological distress. In terms of time during nurse-patient interactions, well over 80% was consistenly concerned with patients' physical condition" (p 183). Davitz and Davitz also claim that the nurses in their sample neglected the psychological dimension of nursing because they were aware of being inadequately prepared to deal with psychological distress. Discussion about the degree to which nurses may be aware of controlling or limiting verbal interaction with patients is important. The fact is that the nurse-patient conversations recorded in this study were found to be limited in many ways. As has been discussed such limitations have implications for the standard of nursing care that can be achieved. In order to achieve any change in nurses' verbal interaction behaviour it is essential to have an understanding of the extent to which nurses are aware of the phenomenon and the extent to which they deliberately choose to adopt certain strategies. Further research is needed on the lines of that currently being undertaken by Fielding. Such an approach, although methodologically difficult, will make it possible to increase our knowledge in this area, for at the moment we are simply guessing.

8.5 Some possible explanations for limited nurse-patient verbal interaction

Quantitative analysis of the recorded NPC data revealed that conversations tended to be very short and limited in content to superficial topics which were related to the patients' treatment or the task being undertaken by the nurse. Raters' perceptions of these conversations showed that nurses' responses were seen as being friendly, superficial and stereotyped. Overall ratings of communication were low and verbal interaction analysis showed a predominance of discouraging or negative interaction behaviour. There are, clearly, many plausible explanations for this pattern of NPC. Some of these are discussed below in relation to any available evidence for any given explanation.

Perhaps the most widely accepted view is that nurses avoid prolonged contact and conversation with patients because they need to remain detached and uninvolved in order to limit their own stress levels. Menzies (1960) suggested that nursing has developed as a "diffuse hierarchical system" which breaks down the work of nursing into many tasks and encourages a low level of involvement with patients. This has a stress reducing function for individual nurses. It has also been suggested by Jourard (1964) that nurses find it difficult to come to terms with their relationships with patients and that they attempt to resolve this problem by means of stereotyped detached and rigid behaviour. He argues that the nurse's bedside manner is designed to exclude a highly important source of information which will affect how the patient responds to treatment - information which can only be obtained when patients are talking about what is on their minds. As discussed previously, opinions vary as to the extent to which this fear of involvement is unconscious (Menzies 1960) or conscious (McIntosh 1975; Melia 1981).

Quint (1965 b) suggests that nurses handle conversations with dying patients by controlling conversation content and using strategies such as talking about matters removed from the hospital, making small talk, focussing attention on the treatment being given, or teaching

such things as exercise. These kinds of strategies may be predictable in such stressful and threatening circumstances. What is interesting is that this pattern of interaction has been identified in a variety of different nursing settings, including the surgical wards studied in the present research. Also included are intensive care units (Ashworth1976); geriatric wards (Wells 1975) a radiotherapy unit (Bond 1978) and medical wards (Faulkner 1980). All these settings present greatly varied nursing problems and potentially large differences in terms of the possible 'threat' to nurses. It could be argued that it is more threatening and anxiety provoking to interact with patients on a cancer ward or radiotherapy unit than say, on a geriatric or medical ward. If fear of involvement is a reason for limited nurse-patient conversation, then it could be hypothesised that interaction will decrease as the level of threat and fear of involvement increases. What is curious is that these studies reveal a remarkable consistency in the pattern of nurse-patient verbal interaction in spite of the differences in patient needs. This is clearly an area which would be amenable to future research.

An alternative explanation for the pattern of NPC identified in this study is that nurses may, consciously or unconsciously, try to avoid taking responsibility for what they actually say to patients. Again there is little empirical evidence to support this explanation, although Melia (1981) found that nurses felt anxious about giving the 'wrong' information to patients. As discussed earlier, many instances were found in the current study where nurses did not give patients information even when they were in possession of the relevant facts. Neither did they admit to a lack of knowledge or try to get the information from elsewhere.

This concept of taking responsibility for 'talk' as an aspect of nursing is an important one. Nurses appear to learn to take responsibility for nursing tasks early on in their career and indeed, if they did not, then no tangible nursing would take place. However, nursing tasks are,

in the main, predictable and often prescribed. They, therefore, involve the nurse in little decision making. Talking to patients is quite different. Each conversation is unpredictable and 'decisions' have to be made each time a new interaction with a patient takes place. It could be argued that giving nursing care using the principles of the nursing process also involves the nurse in personal decision making about practical nursing tasks. However, the fact remains that the tasks themselves are predictable and the nurse only has to decide 'which task'. It is not, in practice, possible to decide 'which conversation'. The level of personal responsibility required is, therefore, potentially much greater,

Related to the degree of responsibility taken by nurses is the level of their knowledge. It is clearly difficult for a nurse to take responsibility for what she says to patients if her knowledge base is inadequate. In a study of American student nurses, Stein (1969) found that approximately 90% of the sample admitted to not knowing how to answer questions which patients asked. What is surprising perhaps is that nurses should feel that they should know the answers to all questions. In theory, once incomplete knowledge or experience is accepted, all that is necessary is the ability to admit this, combined with an ability to gain the information from elsewhere or pass the problem on to someone more senior or knowledgeable. Yet in practice in this present study, nurses rarely admitted to any lack of knowledge. The preferred 'modus operandi' seemed to be evasion and maintaining superficiality. However, even the most knowledgeable nurse may not feel she has the autonomy or authority to give information and may fear rebuke, particularly from the medical staff.

The issue of who is responsible for giving patients information has been widely debated (McIntosh 1975; Faulkner 1980) but nothing has been resolved. It is accepted that there are areas of information giving such as matters of treatment diagnosis or prognosis where the nurse's responsibility may be limited by her level of knowledge or the extent to which the medical staff allow nurse involvement. However, in the present study this type of information giving accounts for a tiny

proportion of verbal interaction with patients. Many of the cues and questions raised are clearly nursing related - for example, how to cope with a stoma in the bath, problems about being discharged or simple anxiety on being admitted. It is suggested that fear of overstepping the limits of a nurse's authority can be used as a convenient 'red herring' to avoid responsibility for all but superficial conversation with patients.

Another factor which may affect nurse-patient verbal interaction is the lack of awareness or insight amongst nurses of the importance of communication in general and talking with patients in particular. While the phrase "communication is important" is frequently written down and spoken, the relevance of the specific elements of communication to nursing care may not be well understood. Communication and talking with patients are often seen by ward staff as separate and low priority activities (Macilwaine 1978; Melia 1981). This lack of understanding is perhaps predictable given that communication and interaction skills are not generally taught in most programmes of nurse education (Nurse 1977). Yet, as was argued in chapter 1, the ability to communicate effectively requires a high level of skill and such skill has to be learned, practiced and improved.

The data from this study suggest that the nurses recorded were not using communication skills which would enable them to meet their patients' needs. It was suggested, however, that nurses did display considerable evidence of 'degenerate skill' by using discouraging strategies or tactics with patients.

Bandura (1977) argues that all behaviour is learnt either by practice and feedback or by modelling. It is, therefore, suggested that the absence in nurse education of any specific communication skills teaching results in nurses learning to communicate with patients solely by role modelling. Bandura also suggests that individuals are more likely to adopt modelled behaviour if it results in outcomes which are rewarded or valued. He also claims that a great deal of human behaviour is motivated by the need for anxiety reduction. In

consequence, coping behaviours are quickly developed in order to avoid high emotional arousal. He states;

> "After people become adept at self protective behaviours they perform them in potentially threatening situations without having to be frightened.....
> .....Defensive behaviour is thus maintained by its success in forestalling the occurrence of aversive events. Once established, defensive behaviour is difficult to eliminate even when the hazards no longer exist."
> (Bandura 1977, p 62)

This conceptualisation may be of value in attempting to explain the limitations and superficiality of the nurse-patient verbal interactions recorded in this study. A nurse's first experiences on a ward are bound to be anxiety provoking, even if she has been taught the rudiments of physical care. While new nurses are not usually expected to undertake physical nursing tasks on their own, they are often expected to be able to talk with patients. Most will not have received any teaching related to the skills of communication and will, therefore, 'learn' how to deal with patients by watching other more experienced nurses. If they see these nurses interacting with patients in a superficial manner, then they too will learn to do so. Moreover, in their ignorance of how to relate to patients, such superficiality will protect them from having to cope with difficult questions and conversations. If Bandura is correct, this defensive behaviour becomes difficult to unlearn even when it is no longer necessary; and the vicious circle is continued.

One way of establishing whether this explanation has any validity would be to investigate the effect of a specific communication skills teaching programme or a different type of role model upon the pattern of NPC in a given context. In order to meet patients' needs adequately, nurses need a whole range of verbal interaction skills. They also need much more than everyday social skills if they are to fulfil a professional nursing role and if they are to give good nursing care rather than protect themselves. It has been shown that verbal interaction skills

can be learnt and improved (Ellis 1980) and it would seem a logical step to give these skills priority in all nursing curricula.

At present the emphasis in nurse education is upon the acquisition of skills which result in task completion. They are task related skills, not person related skills. Defensive behaviour may in consequence be developed in order to maintain distance and discourage involvement with patients. There is thus a mismatch between the stated ideal role of a nurse as described in chapter 1 and the reality of the role a nurse must adhere to.

In this section several factors have been discussed which may affect the pattern of nurse-patient interaction. These include factors such as degree of responsibility, level of knowledge, fear of involvement and the way in which communication behaviour is learnt. Whilst this is obviously a complex area in which the above factors are not separate, but interrelated, it is also clear that the issue of how nurses learn to interact with their patients is of central importance. Indeed it is paradoxical that communication is given so much emphasis on paper but so little attention in practice in nurse education. It is suggested that at present the status quo of nurses' interaction behaviour is being perpetuated by default and that limited nurse-patient communication is being unwittingly encouraged.

8.6 Implications of the research findings

In chapter 1 the importance of communication to nursing was examined and patients' needs for support, reassurance, advice, education and information were described. It was also argued that these needs could only be met if nurses possess the appropriate verbal interaction skills - skills which encourage conversations and allow the identification of patients' needs and recognition of their feelings. The data recorded in this study point to a lack of such skills. Conversations were limited both in quantity and quality and such findings clearly have implications for standards of nursing care. Henderson (1977) says that "Whatever the setting, the nurse has an inescapable responsibility for helping the patient maintain

and develop satisfying ways of expressing his needs, interests and desires" (p 40). The data presented in this thesis point to a deficit related both to the identification and the meeting of such patient needs. It is suggested that verbal interaction data can provide a valuable indictor of standards of care.

Analysing nurse-patient conversations can demonstrate a great deal about the nursing care being given during the interaction. The content and structure of a nurse-patient conversation will inevitably and accurately describe the parameters of the nursing care taking place during that time. This relationship between verbal communication and quality of care has also been hypothesised by Reiter and Kakosh (1963) who state that "conversations between nurse and patient seemed to be an index to the manner in which nursing care was carried out and accepted by the patient" (p 27).

Standards of nursing care must be related to the extent to which patients' needs are identified and met and the content and dynamics of NPC can provide a crucial source of data. Using such criteria the findings of this research suggest that the patients on the wards studied were <u>not</u> receiving adequate care. The data were analysed using a multidimensional approach and the results of applying each dimension of analysis were similar. A consistent pattern of limited and superficial verbal interactions emerged.

It is felt that the research methods developed and used in this study may, if refined, have potential for use in further investigations. The verbal interaction analysis dimension of the framework may have particular relevance to the teaching and assessment of interaction skills in nursing, as well as for further research. The need for more research in this area is clear. This study has only succeeded in analysing a small data base of recorded conversations. The analysis methods were rudimentary and require refinement and adaptation. In addition the validity and reliability of the analysis approaches must be more firmly established.

8.7 Conclusion

The findings of this research indicate that, on the wards studied, nurse-patient conversations were limited both in quantity and quality. Nurses displayed little evidence of using skills which encourage communication although many examples were identified of nurses using strategies which may block or discourage communication. This research, therefore, offers some tangible support for the suggestions made by other researchers such as Menzies (1960) and Jourard (1964) that nurses distance themselves from patients thereby restricting and blocking contact and effective communication. Analysis of the data base of recorded conversations has highlighted some of the verbal strategies and tactics which may be used by nurses to achieve this distance and maintain superficiality.

This research has made a start in understanding the processes involved in nurse-patient verbal interaction. Many new questions have been raised which remain to be explored and answered, particularly those relating to why negative behaviour occurs and how it can be changed. However, diverse factors influence nurse-patient interaction; factors such as nurses' attitudes, patients' expectations, the degree of responsibility and autonomy possessed by nurses, and nurses' motivation. All these represent areas which merit further research.

The findings of this study highlight the need for the nursing profession to critically examine the communication element of nursing care. An area which requires urgent scrutiny is the potential influence that specific communication skills teaching would have on nurses' interaction behaviour. It is suggested that increased emphasis must be placed on the teaching and assessment of communication skills in all programmes of nurse education.

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APPENDICES

APPENDIX 1(a)

Therapeutic and Non-Therapeutic Interpersonal Techniques
(Hays J.S. and Larson K. 1963)

This categorisation scheme makes a distinction between "therapeutic" and "non-therapeutic" interpersonal techniques. Full details of each category can be found in Hays & Larson (1963). An abbreviated list is given below and those items marked with an asterisk are those which raters in this study recognised and coded consistently.

Therapeutic	Non-Therapeutic
Using silence	Reassuring (+)
Accepting	Giving approval
Giving recognition	Rejecting
Offering self	Disapproving
Giving broad openings (+) 1	Agreeing
Offering general leads (+) 1	Disagreeing
Placing the event in time or in sequence	Advising (+)
Making observations	Probing
Encouraging description of perceptions	Challenging
Encouraging comparison	Testing
Restating	Defending
Reflecting	Requesting en explanation
Focusing	Indicating the existence of an external source
Exploring	Belittling feelings expressed (+)
Giving information (+)	Making stereotyped comments
Seeking clarification	Giving literal responses
Presenting reality	Using denial
Voicing doubt	Interpreting
Seeking consensual Validation	Introducingan unrelated topic (+)
Verbalising the implied	
Encouraging evaluation	
Attempting to translate into feelings	
Suggesting collaboration	
Summarising	

1 - very rarely identified

(+) - coded consistently

APPENDIX 1(b)

A behavioural checklist for estimating the development of communication skills (Topf 1969)

This checklist makes a distinction between 'effective' and 'ineffective' verbal behaviour. Interactions are divided into 8 activities presented below. Only the first 4 - initiation, questioning, listening and observation - were used in this study. Items marked with an asterisk are those which were consistently recognised and coded by raters in this study.

Ineffective behaviour	Effective behaviour
Initiating the interaction	
Begins the interaction with a complex or threatening topic.	Guides the interaction from the superficial to the complex.
Keeps the interaction on a superficial basis. (+)	
Allows herself to be the focus of the interaction. (+)	Guides the focus of the interaction away from herself.
Encourages verbalization of delusional or detailing of inappropriate material.	Guides the interaction away from the expression of delusional material and/or toward reality oriented conversation.
Questioning	
Elicits a 'yes' or 'no' response (+)	Uses indirect method to gain information, such as open-end statement.
Uses direct questioning unnecessarily.	Restates the patient's comment question or demand.
	Uses direct questioning to obtain specifically needed information. (+)
	Uses questioning to direct the interaction from fruitless to fruitful channels.
	Asks for clarification or restatement.

Appendix 1(b) (cont)

Ineffective Behaviour	Effective Behaviour
Listening	
Fills silence with her own talking. (+) (video)	Waits out silence or allows the patient to fill a pause.
Elaborates about herself to the patient.	
Answers the patient's questions as opposed to gaining information.	
Interrupts the patient unnecessarily. (+)	
Changes the subject when the patient is exploring a topic in depth.	
Makes a suggestion before the patient has been allowed to express himself. (+)	Allows the patient to express an idea before making a suggestion.
Encourages the expression of feelings to open up areas that she and/or the patient are unable to cope with.	Encourages an appropriate amount of feeling ventilation.
Withholds indicating to the patient that she understands what he has said.	Indicates by brief, relevant comment that she understands what the patient has said. (+)
	Summarises what she thinks the patient has said.
Observation	
	Notes significant opening and/or closing comments made by the patient.
	Notes an abrupt shift in the conversation initiated by herself or by the patient.
Overlooks a verbal cue. (+)	
	Notes repetition of material.
	Notes the patient's story is not unified (i.e. gaps, contradictions, unclear meaning, etc)
	Notes a gesture, facial expression, body posture, tone of voice, dress, etc.
Overlooks a non-verbal cue. (+) (video)	
	Notes incongruence (i.e. does not fit with 'I feel fine'.

Appendix 1(b) cont

Ineffective behaviour	Effective behaviour
Problem solving	
Withholds seeking out the patient's feelings or the underlying meaning of his behaviour.	Seeks out the patient's feelings or the underlying meaning of his behaviour.
Identifies the patient's problems for him.	Encourages the patient to identify problems.
	Encourages the patient to elaborate more fully.
	Withholds advice.
Gives direct advice.	Encourages the patient to suggest solutions.
States direct disapproval of the patient's idea.	Withholds her approval or disapproval of an idea expressed.
States her conclusions about the patient without stating her rationale.	Relates to the patient her reasons for reaching a conclusion about him.
Withholds encouraging the patient to explore alternatives.	Encourages the patient to explore alternatives.
Interpretation of the Interaction	
Fails to write interpretations of behavioural cues exhibited by the patient or herself as factors that may have influenced the interaction.	Writes interpretations of her observations as factors that may have influenced the interaction or that may be the underlying cause of the patient's problem.
Makes a generalisation about the patient based on insufficient data.	Makes inferences about the patient based on sufficient data
Omits writing interpretations of her own responses to the patient.	Writes interpretations of her own responses to the patient.
Evaluation of the Interaction	
Withholds writing the strengths and weaknesses of the interaction.	Writes the strengths and weaknesses of the interaction.
Limits evaluation to her own participation in the interaction.	Evaluates her participation and the patient's participation in the interaction.
Omits writing objectives for patient care based on her interpretation and evaluation.	Writes objectives for patient care based on her interpretation and evaluation.
Omits writing objectives for her own improvement.	Writes objectives for her own improvement.

Appendix 1(b) cont

Ineffective behaviour	Effective behaviour
Recording of the Interaction	
Fails to record introductory data such as age, sex, dress, ethnic group setting, etc	Writes introductory data.
Paraphrases what was said during the interaction.	Quotes what was said.
Omits writing her responses to the patient.	Writes her reponses to the patient.
Writes her interpretations and/or feelings in the observation section of the process recording.	Writes her interpretations and/or feelings in a separate section.
Writes inferences instead of descriptive narration.	Writes observations descriptively.

APPENDIX 2(a)

Chelsea College

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lursing Education Research Unit
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Department of Nursing Studies
Professor J.C. Hayward, BSc, PhD, SRN
RMN, DN, RNT

Manresa Road, London, SW3 6LX
01-352 1780

Re: Nursing Research Project

Research Fellow: Mrs J. Macleod Clark BSc, SRN

This research project has been explained to me. I understand that I am being asked to participate in a research project which will involve me being tape-recorded for approximately three hours. I understand that the recordings will be analysed but that my identity will not be made known. I give my consent to take part in this project.

Signed.....

APPENDIX 2(b)

Chelsea College

University of London

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Manresa Road, London, SW3 6LX
01-352 1780

Dear Patient,

I am a nurse and I am carrying out a small project on this ward. The project is attempting to look closely at some aspects of nursing care. This means that from time to time you may see one of the nurses wearing a small microphone. This will not affect the care you receive in any way but will hopefully enable us to understand more about nursing.

You will not be asked to do anything other than be a patient! You will be contributing to the project just be being in the ward during this time. You will not be identifiable by name and the project will be completely confidential. We do hope that you will feel able to help in this way but will quite understandif you prefer not to take part. In this case please let me know. I shall be on the ward whenever the project is in progress and will be pleased to talk to you and answer any questions that you may have.

Thank you for your help.

Yours sincerely,

Jill Macleod Clark
Nursing Research Fellow

APPENDIX 3(a)

Age distribution by percentage of patients discharged from all surgical wards in the Health District during 1979 compared with the age distribution of patients discharged from the wards studied during the same year.

Age in years	Age of patients discharged from all surgical wards in the District	Age of patients discharged from wards used for recordings
	%	%
<20 years	4.4	7.9
20-29	13.36	16.65
30-39	9.20	11.87
40-49	10.32	7.54
50-59	16.1	14.04
60-69	19.94	18.76
70 +	26.5	23.24

APPENDIX 3(b)

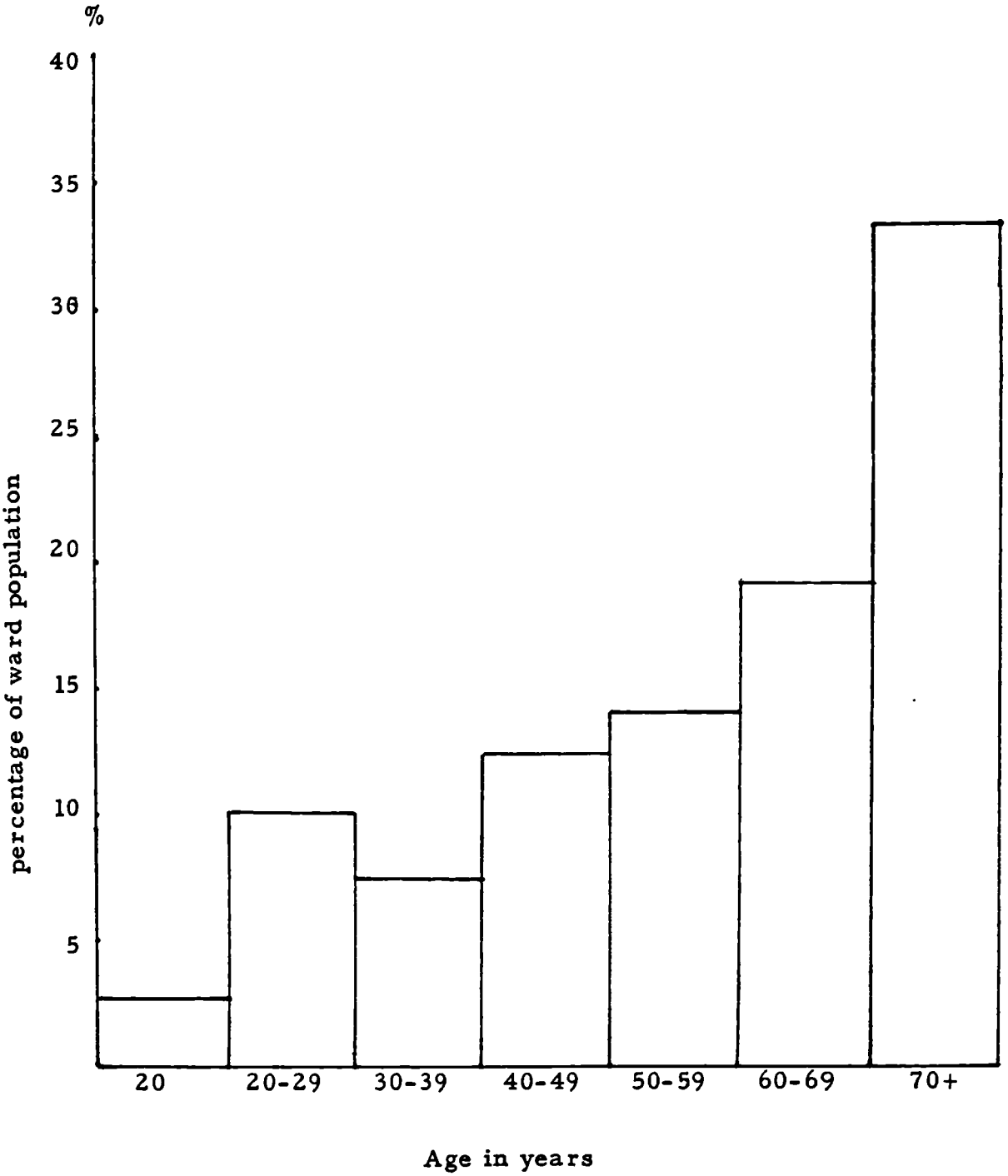
The socio-economic status of all patients on wards studied during days when Sample A data were being recorded.

Socio-Economic Class	% of Total Patients
1	5.19
2	15.90
3	32.95
4	31.16
5	14.77
	100%

Registrar - General's Classification of Occupation- OPCS (1970)

APPENDIX 3(c)

Block diagram to illustrate the age distribution of patients in wards studied



APPENDIX 3(d)

Observation Schedule

NURSE: DATE: TIME:

TIME	TAPE NO	BED NO	ALONE	SCREENS	CONTEXT

APPENDIX 3(e)

Patient Information Schedule

NURSE: DATE: TIME:

	List of Patients	Diagnosis	S/C	Age	DOA
Bed 1					
Bed 2					
Bed 3					
Bed 4					
Bed 5					
Bed 6					
Bed 7					
Bed 8					
Bed 9					
Bed 10					
Bed 11					
Bed 12					
Bed 13					
Bed 14					
Bed 15					
Bed 16					
Bed 17					
Bed 18					
Bed 19					
Bed 20					
Bed 21					
Bed 22					
Bed 23					
Bed 24					
Bed 25					
Bed 26					
Bed 27					
Bed 28					

APPENDIX 3(f)

STRATIFIED SAMPLE FRAMEWORK

GRADE OF NURSE	TIME OF DAY						
	7.45-9.45am	9.45-11.45am	11.45am-1.45pm	1.45-3.45pm	3.45-5.45pm	5.45-7.45pm	7.45-9.45pm
Student Nurse (Male surgical)	Nurse 005 Saturday	Nurse 003 Friday	Nurse 006 Monday	Nurse 001 Tuesday	Nurse 007 Wednesday	Nurse 009 Thursday	Nurse 011 Sunday
Staff Nurse (Male surgical)	Nurse 002 Friday	Nurse 008 Thursday	Nurse 004 Sunday	Nurse 008 Monday	Nurse 004 Thursday	Nurse 002 Saturday	Nurse 010 Wednesday
Student Nurse (Female surgical)	Nurse 019 Wednesday	Nurse 012 Monday	Nurse 022 Friday	Nurse 015 Saturday	Nurse 018 Tuesday	Nurse 016 Sunday	Nurse 021 Thursday
Staff Nurse (Female surgical)	Nurse 013 Tuesday	Nurse 013 Wednesday	Nurse 014 Thursday	Nurse 014 Friday	Nurse 017 Sunday	Nurse 020 Monday	Nurse 020 Saturday

APPENDIX 3(g)

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PATIENT CONSENT

Purpose of Research

The purpose of today's research activity is to make some videotapes of typical nursing situations which may be used for analysing certain nursing skills.

Patient Consent

I the undersigned understand the purpose of this research and am willing to allow videotapes in which I appear as a patient to be made and used in the development of research and educational methods for nurses and other health care professionals.

Name (Capitals).....

Date.....

Signature.....

Address.....

.....

.....

APPENDIX 3(h)

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Manresa Road, London, SW3 6LX
01 352 1780

NURSE CONSENT

Purpose of Research

The purpose of today's research activity is to make some videotapes of typical nursing situations which may be used for analysing certain nursing skills.

Nurse Consent

I the undersigned understand the purpose of this research and am willing to allow videotapes in which I appear as a nurse to be made and used in the development of research and educational methods for nurses and other health care professionals.

Name (Capitals).....

Date.....

Signature.....

Address.....

.....

.....

APPENDIX 4(a)

Examples of Descriptors and Behaviour (In order of frequency of appearance in panel descriptions)

bad	-	good	(most frequent)
superficial	-	deep	
busy	-	unbusy	
task oriented	-	patient oriented	
pleasant	-	unpleasant	
vague	-	precise	
helpful	-	unhelpful	
stereotyped	-	unstereotyped	
evasive	-	non-evasive	
uninvolved	-	involved	
friendly	-	unfriendly	
impersonal	-	personal	
technical	-	emotional	
asertive	-	passive	
kind	-	unkind	
distracted	-	undistracted	
patronising	-	deferent	
relevant	-	irrelevant	
appropriate	-	inappropriate	
predictable	-	unpredictable	
formal	-	informal	
disinterested	-	interested	(least frequent)

Nurses	Patients
using cliches	wanting to talk
sounding concerned	dropping hints
changing the subject	giving clues/cues
making reassuring noises	
missing the point	
avoiding getting involved	
missing cues	
listening	
being off-putting	
making an effort	

APPENDIX 4(b)

Reduced list of 11 descriptors after pilot rating exercise

The 6 descriptors used in coding complete data base	superficial-neutral-deep	+not applicable
	task oriented-neutral-patient oriented	+ not applicable
	vague-neutral-precise	+ not applicable
	stereotyped-neutral-unstereotyped	+ not applicable
	evasive-neutral-non-evasive	+ not applicable
	involved-neutral-uninvolved	+ not applicable
	friendly-neutral-unfriendly	+ not applicable
	personal-neutral-impersonal	+ not applicable
	assertive-neutral-passive	+ not applicable
	patronising-neutral-deferent	+ not applicable
	appropriate-neutral-inappropriate	+ not applicable

APPENDIX 4(c)

A Random Sample of Nurse Patient Conversations

This Appendix comprises 28 nurse-patient conversations - each of which was taken at random from one of the main data base transcripts. (These data were collected using an audio-tape recorder).

Although all nurse and patient 'turns' were numbered consecutively throughout the data, only initial 'identifying' response numbers have been given for nurse and patient turns in this Appendix.

The nurse was doing the drug round and paused with the trolley in front of this patient's bed. The patient, male aged 51, had been admitted 4 days previously after an RTA but was now ready to be discharged.

(0413) N: You're looking very smart now.

(0373) P: Yes, looking smarter every day.

N: Yes nothing for you.

P: You are not giving me no tablets when I go are you?

N: No, because you haven't been having any while you've been in hospital. We'll give you your appointment card and your National Insurance Certificate.

P: You've got that have you?

N: Yes and I've got your HSA form as well which we'll deal with on Tuesday.

P: Just a couple of dressings, then?

N: Yes, that's right.

The nurse was standing by the side of the patient's bed changing the I.V. infusion fluid. The patient was male, 71 years old, 3 days post op. (laparotomy).

(1113) N: We've got another drip for you.

(0977) P: Um yeah..... It'll be finished sometime I suppose.

N: Yes it will. Seems a long time to you though, doesn't it, when you are just lying all day not doing very much.

P: Ah well, it's difficult to know whether it's night or day when you are like this.

N: Yes it is.

P: Well.....

N: Different flavour this time'.

P: Oh....

The nurse was walking down the ward and stopped to talk to a male patient aged 68 who had had vein graft surgery 6 days previously.

(0124) N: Are you alright?

(0109) P: I'm just a bit tired that's all.

N: Do you want to go back into bed?

P: No, me legs ache - I just thought I'd rest them on the floor.

N: Well, have you tried putting your legs up if they ache?

P: They are not comfortable there, that's all.

N: Did you try a pillow underneath your legs?

P: Yes, I'll get back in a while.

The nurse was making up the empty bed next to this patient, a female aged 42 with abdominal pain and P.U.O.

(1057) P: You're back I see.

(1206) N: Yup I'm back. You can't get rid of me forever. Are you OK?

P: Well, a few problems.

N: You look a bit tired.

P: Umm, not so much tired, but every time I spend a penny I'm swinging from the rafters.

N: Umm how long have you had that?

P: Er...Saturday

N: That's not funny is it? And with the weather being hot as well.

P: Oh that's lovely.

N: Yes, it's smashing isn't it?

P: What a time to choose to be in hospital.

N: Well you can stick your nose outside though.

P: I've been out. I escorted my son out to make sure he didn't pinch the nurses on the way.

N: We should be so lucky!

The nurse was giving a female patient, aged 70, an injection for pain. The patient had had a laparotomy 2 days previously.

(2251) N: We'll give you an injection dear. It'll take the pain away and give you a nice rest. Alright?

(1975) P: Mm....

N: Just a bit cold and now a little prick, OK?

P: Can we do anything else to get rid of the soreness?

N: Not really dear. It's just a matter of waiting. I think the more you move, the more you move a little bit, get up in the chair you know, and change positions, that's the only thing at this stage.

N: Is it in one special place that it hurts?

P: It's all over here.

N: All over you tum. Mm ?.....

There's not really anything I can give you to get rid of it. It's a question of sitting and waiting. But the doctor thinks your tummy looks better - not so blown up as before.

N: There you are.

The nurse was standing at the foot of the patient's bed looking for his drug chart. The patient was a 58 year old male who had had a cholecystectomy 6 days previously.

(0799) N: Ah well, I don't know where yours have gone. Your charts. You've only got them half here!

(0713) P: Oh

N: How are you feeling today?

P: Better.....

N: Yes, You can have another bath this evening.

P: Oh, can I?

N: Yes I think it would be best, um then we can redress it again.

P: When will you do that ?

N: Well about um - or about sometime after visiting.

P: Oh alright.....

N: OK

The nurse went to see if the patient, a female aged 74, admitted with abdominal pain, had finished on the bedpan.

(1461) N: Hullo, have you finished?

(1284) P: Yes thank you. Thank you very much.

N: Oops.

P: I've been like that all day.

N: Oh don't worry about that. Lets straighten this out a bit. Look, you haven't even got any sheet to sit on. You're a fidget, I can tell you.

P: See, for the last 50 odd years I've slept like this because of my heart

N: Oh, you've had a bad heart, have you?

P: Yes, I've had er...

N: Did you have a heart attack then?

P: No, I've got a slow disease, and um, I used to sleep low before, but it's easier to get your breath sitting up.

N; Yes it is, isn't it?

P: You get used to that one position don't you. Thank you very much dear.

The nurse was doing the drug round and stopped at the end of the bed of this female patient, aged 74, who had been admitted for investigation of abdominal pain.

(1869) N: How's your tummy today?

(1642) P: Much more comfortable, thank you.

N: Is it? The pain's gone?

P: Well it hasn't actually gone, it's just .....

N: It just feels a little bit tender then, yes?

OK? Eating alright?

N: It's not the sort of fatty.. things that are making you feel....?

P: Oh, no,...no. I don't feel any sickness.

N: Yes

The nurse was filling in the fluid balance chart of an 82 year old female patient who had had a rectal resection 2 days previously.

(1640) N: Mrs B --? Have you had any more to drink since your cup of tea?

(1440) P: No I only had one cup of tea.

N: Would you like a glass of lemon.

P: No, I had a little drop of water like that first thing.

N: Ummm.....

P: And then my tea.

N: Would you like some more?

P: No, not yet, not yet.

N: Are you sure? Because if you're drinking lots, we can take this drip down.

P: Have the drip down?

N: Yes, we can take this down when you're drinking.

P: Oh go away (laughing) you're getting at me, teasing me, ain't you!

N: I'm not (laughing)

P: I know!

N: No I want you to drink lots to see if you're tolerating it and then when you are we can take this down so you won't have this anymore.

P: Oh I see, well that's all he told me this morning, just one cup.

N: Just one cup.

P: Yeah.

N: Oh well, the nurse said you could drink more than that.

P: Can I, oh well I will then see.

N: So can I pour you out a glass of lemon?

P; Yes

N: Or do you want just water?

P: Yes

N: Water or lemon?

P: Do it half way, don't do it full.

continued from previous page

N: Do you want this in?

P: Yeah, half will do for now.

N: How much of this?

P: That'll do love.

N: That'll do?

P: You are forcing me you know.

N: I am, arn't I.

P: Thank you.....

Ooh, it's frigging lovely isn't it?

N: Is it nice?

P: Ummm.

The nurse was in the sluice talking to a female patient aged 40, who had had her varicose veins "stripped" 4 days previously.

(2335) N: How are you today?

(2038) P: Oh fine, thank you.

N: Have you got.... it's stitches at the top is it?

P: Yes

N: There's nothing at the bottom is there?

P: No there isn't.

N: You don't know what you've got down there?

P: No - I've got the stitches up here but I can't see down there.

N: Still at least you can move around alright. Anyway.

P: Much better than what I thought I would.

P: I'm glad it's all been done with. I'm not very brave.

N: You had it done before though didn't you?

P: In '61.

N: 1961?

P: Mm. I'd forgotten what it was like.

N; It's a bit stiff afterwards isn't it?

P: Yes

The nurse was checking the I.V. of a male patient, aged 72, who had had CCF and renal failure.

(0660) N: Hello there where are you going?

(0587) P: Nowhere

N: Are you alright?

N: Don't pull on your drip so much love because it er might just.....

N: Could you come round this way a bit. Tell you what, if you just swing your legs over the other side then you don't er....

N: Would you like the window opening a bit? No?

N: Can you try not to pull on your drip too much?

P: I haven't been pulling on it.

N: That's right. Who brought your flowers in?

P: I don't know. They are nice.

N: Oh who arranged them? They are beautiful.

P: Did you really? You are a clever girl then.

N: Umm? Are you a bit exhausted after that. Do you want to get back into bed now?

P: Yeah, I'll do that.

N: I'll swing your legs round for you then.

P: It's OK thank you.

N: Alright? That's better, isn't it? Does that feel comfortable?

P: What? Eh?

N: Are you comfortable?

P: Yeah. I'm alright now m'dear,

N: Are you getting any visitors this afternoon?

P: Some of my family perhaps.

N: Oh I hope so.

P: What's the time?

N: It's about 12.15. Would you like some more Ribena?

P: No

N: Sure?

P: Sure

The nurse was doing the TPR round and was talking to a female patient aged 77, who had had a colectomy 5 days previously.

(1962) N: Have you had your bowels open today?

(1723) P: Yeah and I made a mess.

N: Ooh, never mind. I don't mind. (laughing)

P: Yes, but it worries me.

N: Why should you worry about it?

P: Well, I don't like it.

N: Well I know it's not very pleasant, but you shouldn't worry about it.

P: It's this wind I've got you see. I'm afraid of letting go.

N: Listen love, you just let it go. Don't worry about making a mess. I'll clean it up. That's what I'm here for. OK?

The nurse was doing the "back round" and talking to a female patient aged 84 witha fractured femur.

(2368) N: Mrs, W--? Are you comfortable where you are?

(2067) P: Yes, thank you.

N: You are? Great.

P: Not too warm, but...

N: You don't want to get back into bed, do you?

P: No, not really.

N: No you're fine up and about. Take you for a little walk later on - let your dinner go down now.

P: Alright.

N: Smashing.

A male diabetic patient, aged 74, ten days post-op. following a skin graft was talking to the nurse who was filling in the "intake and output" charts.

(0231) P: Now do you want since.....?

N: Since ten o'clock.

P: Well er, there's the coffee came round and I've had 2 glasses of orange.

N: Alright.

The nurse was passing the bed of a 92 year old female patient who had a fractured femur and was fidgeting in her chair.

(2270) N: What are you up to? What are you doing?

(1987) P: Trying to get dressed.

N: Dressed? You don't need to get dressed.

P: I want to get me leg up.

N: How come you got it down? Eh? How did you manage to get it down?

P: It slips down.

N: Hang on, I'll just getyour thing back. You want to leave you legs on the chair don't you?

P: Well I don't mind..

N: Yes - then as soon as you've had your supper we'll pop you back in bed again. OK?

N: Sit back in the chair a bit more because you're a bit dodgy where you are. Back you go. Whoopsy daisy.

P: Thank you. OK yes, it's time to get to bed now.

N: Well, let's stay in the chair for a little while longer because you've not been out very long. How's that? OK?

The patient was female, aged 82, who had had a laparotomy 2 weeks previously, followed by a deep vein thrombosis. The nurse put her head around the screens, which were pulled round the bed, to find out what was going on.

(2053) N: How are you Mrs R--? Are you alright now love? Do you want the blankets over you? Are you hot?

(1803) P: No, the nurse.... um, I don't know what she was going to do now. I don't know.

N: Oh the other girl has gone. She's gone to another ward.

P: Has she?

N; Yeah. She's coming back later, though. She's gone to help out there. I think she's finished with you actually, because she rubbed your bottom didn't she? And everything? So I'll just draw the curtains back.

The nurse was sitting in the office reading notes when the patient, a 28 year old male, admitted with a stab wound put his head round the door.

(0455) P: I was looking to see who was in charge.

(0519) N: Oh it's not me!

P: Well I thought, but you were sitting there.

N: No, not yet.

P: Well, I''ll let you off then.....

N: You are too kind.....

N: You thought I was scribbling away at my kardex, did you?

P: You've got to start sometime....

N: Oh not yet, not yet, no, not quite.

P: How long then?

N: What, till I'm in charge? Ages.

P: Well, until you start writing that out, whether you're in charge or not.

N: I don't know when we start doing this.

P: Oh pretty soon, pretty soon.

N: I did it before when I was on my childrens' ward because we had 2 patients each and we had to do everything for them.

P: Oh yes.

N: So I mean it's quite obvious that we'd write out our kardex but.....

P: Good

The nurse bumped into the patient in the ward corridor. The patient was female, aged 54 and had come to the ward to have her stitches removed.

(1384) N: Oh, hullo.

(1215) P: Good morning.

N: Er..... Dr.K..... a week on Sunday did something to my leg and put 3 stitches in and said I had to come back on Monday or Tuesday of this week.

N: To have the....

P: To have the stitches removed. Do I come here or where? What happens?

N: Mrs. L--?

P: Yes, that's it.

The nurse was doing post operative observations on a 57 year old male patient who had had a check cystoscopy earlier in the day.

(1060) N: Just check your blood pressure.

(0939) P: Is it very faint?

N: No you'll be alright. Has your temperature been taken?

P: I don't remember, everything's vague.

N: Put this under your tongue. That's it.

The nurse was doing the drug round and asked this female patient, aged 71, who had had a cholecystectomy 3 days previously if she required analgesics.

(2145) N: Do you want anything for pain, Mrs A--?

(2008) P: Yes thank you.

N: Super, here you are.

The patient, a male aged 71, who had recently had an embolectomy, noticed his I.V. connection was leaking.

(1028) N: What, did I do that? (I.V.)

(0912) P: It seems to be leaking. I think it must have been when you put that stuff in.

N: Oh er, it's just disconnected down here.....

P: Ow

N: That's it, lovely. That's all it was. That was soon fixed. Alright?

The nurse was showing a new admission to her bed on the ward. The patient was female, aged 70, admitted for a check colonoscopy.

(1724) N: Right can you come this way?

P: Thank you

N: Have you been in here before?

P: Yes

N: Oh... What, recently?

N: No last year, last July.

N: Oh, I don't know you, do I?

P: Yes, yes.

N: Have you seen me before?

P: Yes

N: Well there you are. I don't recognise you. I expect you were in and out very quickly, were you?

P: Not really; and it's the same bed as last time!

N: Oh is it the same bed? Well there you are!. Would you like to get into your nightdress and dressing gown and then pull the screens back when you've finished. Alright?

The nurse was filling in the fluid balance charts of a male patient, aged 77, admitted for bronchoscopy.

(0478) N: Did you have a cup of tea this afternoon?

(0425) P: Er..I've had nothing.

N: Oh dear'. Can you remember having anything to drink this afternoon?

P: I'll say yes to the cup of tea.

N: You <u>did</u> have a cup of tea?

P: I'll say yes to that.

N: You think you did? Anything else you can remember? How much orange did you drink?

P: About half that glass.

N: Is that all, did you have the soup? You did, didn't you? OK.

P: Is that intake and output?

N: Yes, to see how you are getting along.

The nurse was filllng in the fluid balance chart of a 47 year old male patient who had a herniorraphy 3 days previously and had had some difficult in passing urine since the operation.

(0970) N: What have you had to drink today Mr. H--?

(0862) P: Two cups of tea and a glass of water. But I am ....

N: And a cup of coffee?

P: Oh wait a minute, I don't think it was .....

N: You did have 2 early morning cups, did you?

P: Oh I don't know, wait a bit. I think so.

N: Never mind, fine. Are you using the bottles?

P: Yes, but they've been taken away I think.

N: That's right.

The nurse put a jug of milk on the locker of a female patient aged 24 who had had a thyroidectomy.

(1396) P: Milk'. Ugh, how horrible...

(1586) N: You've got to have lots of milk.

P: Horrible '. .....

P: Cold?..... oh.

N: You've got about 2 glasses there,

P: Oh gawd'.

N: But if you'll remind L-- that you want some more 'cos it's going to get warm if you leave it on the side.

P: Is it two glasses a day then?

N: Well, lots and lots.

P: Oh no'.

N: You don't like milk?

P: No

N: Well see if you can drink a glass now.

P: OK then.

N: Right

The patient, a male aged 55, was due to have a cystoscopy later in the day. He followed the nurse and tapped her on the shoulder.

(0220) P: Will it be alright to take a bath now - now I've seen the doctor?

(0240) N: Oh yes, fine.

P: You see they told me I got to have one this morning.

N: Well it's just that you're nice and clean for your operation, you see.

P: So the doctor's been up, so is it alright now?

N: That's fine if you just have a real good wash.

P: Yes

N: I think those baths are both free.

P: Well they told me not to go till I've seen the doctor....

N: Oh I see, yeah.

P: So now I've seen his assistant anyway I'll jump in?

N: OK

P: I didn't know if anyone else wanted to see me.

N: No I don't think so, I think you're alright.

A male patient, aged 71, who had had an above-knee amputation 3 days previously, called the nurse who was passing the foot of his bed.

(0838) P: Can I have a towel please nurse?

(0938) N: Pardon?

P: A towel

N: In your locker.

P: Oh could you reach it for me?

N: You want the towel?

P: Yeah, to wipe some of this perspiration off me.

N: Oh dear. (laughing). There we go. There's a cup of tea here.

P: Pardon?

N: Tea.

The nurse walked up to the patient, a male aged 75, who had had an abdomino-perineal resection.

(0589) N: OK Mr. B--? they'll be up this morning from pharmacy - your new stuff.

(0524) P: What?

N: The stuff for your eyes - we'll get it up for you this morning. Alright?

P: They went on drops, then creams, then someone says go back to the drops again.

N: It looks very swollen.

P: Well they were pulling it about yesterday.

N: OK then, we'll pop you in the bath.

P: What?

N: Now. If there's a bathroom free I'll go and run your bath. OK?

P: How about this? (pointing to the colostomy)

N: What do you mean, how about this? Well it's alright isn't it?

P: No but I mean about in the bath...

N: Oh, it'll be alright.

P: Will it?

N: Yeah, it should be.

APPENDIX 4(d)

RATER'S INSTRUCTION SHEET

You will find enclosed some typed-out conversations which actually took place between nurses and patients on general surgical wards. Each statement made by a nurse during these conversations has been given a number. You will also find a batch of rating sheets with numbers down the left hand side. These numbers should correspond to and be in the same order as the numbers on the conversations. Across the top of the rating sheets are several terms which can be used to describe each of the statements made by the nurses. For each of these terms you are given a choice of four alternative codes and your task is to give a code to every numbered nurse's statement under each of these descriptive terms.

For example: For response No. 2271, you may feel that it could be described as - vague, patronising, impersonal, friendly, assertive, superficial, patient oriented, stereotyped, neutral, non-evasive, appropriate - and the rating sheet would look like this:

2270											
2271	3	1	3	1	1	1	1	1	2	3	1

Wherever possible, try to use one of the clear descriptive codes (1 or 3). However, if you feel the term itself is appropriate but cannot decide exactly how to code it, you can use "neutral" code (2). If you find it impossible to code any particular statement on one of the descriptive items, then use code 4 (not applicable), but please try to use code 4 as little as possible.

N.B. There is no right or wrong answer - we are only interested in your opinion. Please feel free to make any additional comments.

Overall rating for each conversation: At the end of each of the conversations you are asked to rate the nurse's overall level of communication on the following scale:

1. Very good communication
2. Good communication
3. Average communication
4. Poor communication
5. Very poor communication.

There is no need to complete the task in one sitting, but it is probably better to do it over a few consecutive days. Your deadline for this task is ..... When you have completed all the rating sheets please return them, together with the conversation sheets, in the enclosed stamped addressed envelope making sure that your name and address is written clearly on the address slip.

Thank you for your help.

Jill Macleod Clark
Nursing Research Fellow
Chelsea College

APPENDIX 4(d)

Example of one page of the coding schedule

PAGE 1. of —— Response No.:	precise 1 / neutral 2 / vague 3 / not applic 4	patronising 1 / neutral 2 / deferent 3 / not applic. 4	personal 1 / neutral 2 / impersonal 3 / not applic. 4	friendly 1 / neutral 2 / unfriendly 3 / not applic. 4	assertive 1 / neutral 2 / unassertive 3 / not applic. 4	superficial 1 / neutral 2 / deep 3 / not applic. 4	patient oriented 1 / neutral 2 / task-oriented 3 / not applic. 4	stereotyped 1 / neutral 2 / unstereotyped 3 / not applic 4	involved 1 / neutral 2 / uninvolved 3 / not applic 4	evasive 1 / neutral 2 / non evasive 3 / not applic 4	appropriate 1 / neutral 2 / inappropriate 3 / not applic. 4
2270											
2271											
2272											
2273											
2274											
2275											
2276											
OVERALL RATING:											
2251											
2252											
2253											
2254											
2255											
2256											
OVERALL RATING:											
0478											
0479											
0480											
0481											

APPENDIX 4 (e)

Coding framework for verbal behaviour in nurse patient conversations

	Behaviours		Code given	Inter-coder agreement
Patient:	Direct questions		DQ	90%
	Statements Implied questions Indirect questions	) seen as cues	Cue	84%
Nurse:	Open questions		0	100%
	Closed questions (appropriate)		Ca	100% (+)(56%)
(encouraging)	Reflection or mirroring		R or M	96%
	Encourage to continue		E	100%
	+ve response to DQ or Cue		+ve	83%
	Closed questions (inappropriate)		C	100% (+)(62%)
	Leading questions		L	100%
(discouraging)	-ve response (missing, avoiding or blocking DQ or Cue)		-ve	89%

Coders used a colour coding system - red for patient codes
- blue for nurse codes (encouraging
- green for nurse codes (discouragin

(+)N.B. Closed questions were reliably coded 100% of the time. However, coding of whether the closed question was appropriate or inappropriate was less reliable. Inter-coder agreement was only 56% for appropriate closed and 62% for inappropriate closed. This is discussed in more detail in chapter 7.

APPENDIX 4(e) cont..

Coding framework for verbal behaviour in nurse patient conversations

Definitions of categories

Direct question (DQ): Any verbal unit by patient in which a question is clearly being asked.

Cue : Any unit or turn which suggests that the patient requires the nurse to respond with encouragement, information, further exploration etc. N.B. for practical purposes the unit of interest is the stimulus from patient - in a way, whether it is direct or indirect is less important than the fact that it appears to require some kind of intervention from nurse in the conversation which will encourage further interaction.

Open questions: Any question which leaves an unlimited range of responses 'open' to the patient, eg "how are you feeling', 'what actually happened'.

Closed question (appropriate): A question which only leaves the patient prescribed alternative replies - usually two (yes or no), eg. 'Are you feeling better'. Such questions are appropriate if they are used to extract specific information required for the maintenance/encouragement of the interaction.

Reflection: The repetition of patients' statements/feelings/words in a reflective way, which encourages the patient to expand or explore the topic/ conversation, eg. P: I've got so much pain. N: You're feeling sore?

Mirroring: Using a word or phrase used by the patient to encourage further disclosure, P: I'm in so much pain. N: Pain?

Encouragement to continue: The 'uh-huh' 'yes', 'mm', 'go on' which give the patient the cue to continue if he wishes.

+ve response to DQ or Cue: Overlaps with all previous 'encouraging' behaviours but is also a fail-safe. Includes giving appropriate information, taking action as well as using encouraging behaviours outlined above. So many responses could have +ve and E codes, for example

Closed question (inappropriate): A question which restricts the range of possible responses by patients (usually to yes or no). It is deemed inappropriate when seen to discourage further explanation, taking the form of a cliche or when it fails to elicit required information.

Leading question: Any question where the patients response is implicity predetermined by the nurse, eg. 'you re getting better, aren't you?'

-ve response to DQ or Cue: Includes missing, avoiding, ignoring cues or DQ plus use of cliche or stereotyped response which effectively discourages further pursuit of topic.

APPENDIX 5 a

Quantitative analysis - notes on data and analysis

The sample of nurse-patient conversation data which was subjected to analysis consisted of the verbal interaction content of 28, two hour audio-tape recorded sessions. The following points should be noted:

(1) Statistical analysis: All tests of statistical significance used in the quantitative analysis were non-parametric (Siegel, 1956). Non-parametric tests were chosen because of the measurement limitations in the data, small sample sizes and because such tests make no assumptions about 'normality' or homogeneity of variance.

(2) Chi square tests: Where Chi square tests have been used to examine the difference between the observed frequency of occurrence (of NPC) and an expected frequency of occurrence, the expected frequencies were derived from consideration of the number of patients who comprised the population of potential participants in a nurse-patient conversation. Although all statistical analysis was undertaken on actual frequency data, some information has been presented in the form of 'percentage of total' for ease of comparison.

(3) The Nurses: Half of the recorded sessions (14) involved recording student nurses and the other half involved trained nurses. Each of the student nurse sessions was obtained using a different nurse for each session (n = 14), while only eight trained nurses (the total complement of staff nurses on the two wards) contributed to the trained nurse sessions. Thus, six of the eight staff nurses were recorded twice. For this reason, throughout the analysis, whenever data are compared between trained nurses and student nurses, or between wards, the data for each of these six staff nurses have been summed, then averaged.

(4) The Patients: A total of 148 patients were involved in the tape recorded conversations, out of a potential population of 616 patients. Thus each patient contributed an average of 2.09 conversations to the data base of 310 NPCs.

(5) Interpretation of statistical analyses: The principal unit of data for the purposes of analysis was each individual NPC, on the basis that every conversation is a unique, discrete entity. However, as discussed in points 3 and 4 above, the conversations did not always occur between a unique combination of participants. There is a sense, therefore, in which all the data being analysed are inter-related.

It could be argued that statistical analysis is inappropriate for a small data base with these characteristics. However, one of the aims of this study was to assess the value and feasibility of different methods and approaches to the analysis of such data. Some statistical analysis was, therefore, undertaken and examples of raw data are given where relevant. The limitations and complexities of the data have been considered and it is suggested that only tentative conclusions should be drawn from any statistical analyses.

APPENDIX 5(b)

Comparison of frequency of NPC occurring in each two hour session between Ward A and Ward B

Ward A (Male) NPC per session		Ward B (Female) NPC per session	
12		6	$\bar{x}$ 6.5
15	$\bar{x}$ 13	7	
11		8	$\bar{x}$ 9
16	$\bar{x}$ 14	10	
12		7	
11	$\bar{x}$ 12.5	17	$\bar{x}$ 15
14		13	
17		11	
7		11	
12		24	
8		10	
8		3	
9		13	
6		12	

$(n_{14} = 158; \bar{x}\ 11.28$

$(n_{11} = 118.5; \bar{x}\ 10.77$

$(n_{14} = 152; \bar{x}\ 10.85$

$(n_{11} = 121.5; \bar{x}\ 11.045$

Mann Whitney U = 57.5 (N.S.)

APPENDIX 5(c)

Comparison of frequency of NPC occurring in each two hour session between trained staff and student nurses

Trained staff NPC per session		Student nurses NPC per session
12		17
15	$\bar{x}$ 13	7
11		12
16	$\bar{x}$ 14	8
12		8
11	$\bar{x}$ 12.5	9
14		6
6	$\bar{x}$ 6.5	11
7		11
8	$\bar{x}$ 9	24
10		10
7		3
17	$\bar{x}$ 15	13
13		12
$n_{14} = 159; \bar{x} = 11.35$		$n_{14} = 151; \bar{x} = 10.78$
$n_8 = 89$		

Mann Whitney U = 45.5 (N.S.)

APPENDIX 5(d)

Comparison of length of time (in minutes) spent in nurse-patient conversation between Ward A and Ward B

Ward A (Male) minutes per session		Ward B (Female) minutes per session	
19.2		8.0	$\bar{x}$ 7.4
19	$\bar{x}$ 14.1	6.8	
9.2		33.5	$\bar{x}$ 25.25
15.4	$\bar{x}$ 14	17	
12.6		7.8	
22	$\bar{x}$ 16.7	14.2	$\bar{x}$ 22.75
11.4		31.3	
29.3		37	
9.8		26.2	
53.0		15.5	
10.6		27	
5.2		13.6	
15.4		18.3	
23.0		20.2	

($n_{14} = 255.1; \bar{x} = 18.22$

($n_{11} = 210.3; \bar{x} = 19.11$

($n_{14} = 276.4; \bar{x}$ 19.74

($n_{11} = 221; \bar{x}$ 20.09

Mann Whitney U = 50 (N.S.)

APPENDIX 5(e)

Comparison of length of time (in minutes) spent in NPC between trained nurses and student nurses

Trained nurses minutes per session		Student nurses minutes per session
19.2		29.3
9) $\bar{x}$ 14.1		9.8
19.2)		53.0
15.4) $\bar{x}$ 14		10.6
12.6)		5.2
22) $\bar{x}$ 16.7		15.4
11.4)		23
8.0) $\bar{x}$ 7.4		37
6.8)		26.2
33.5) $\bar{x}$ 22.25		15.5
17)		27
7.8		13.6
14.2)		18.3
31.3)	22.75	20.2

($n_{14} = 217.4$; $\bar{x} = 15.52$

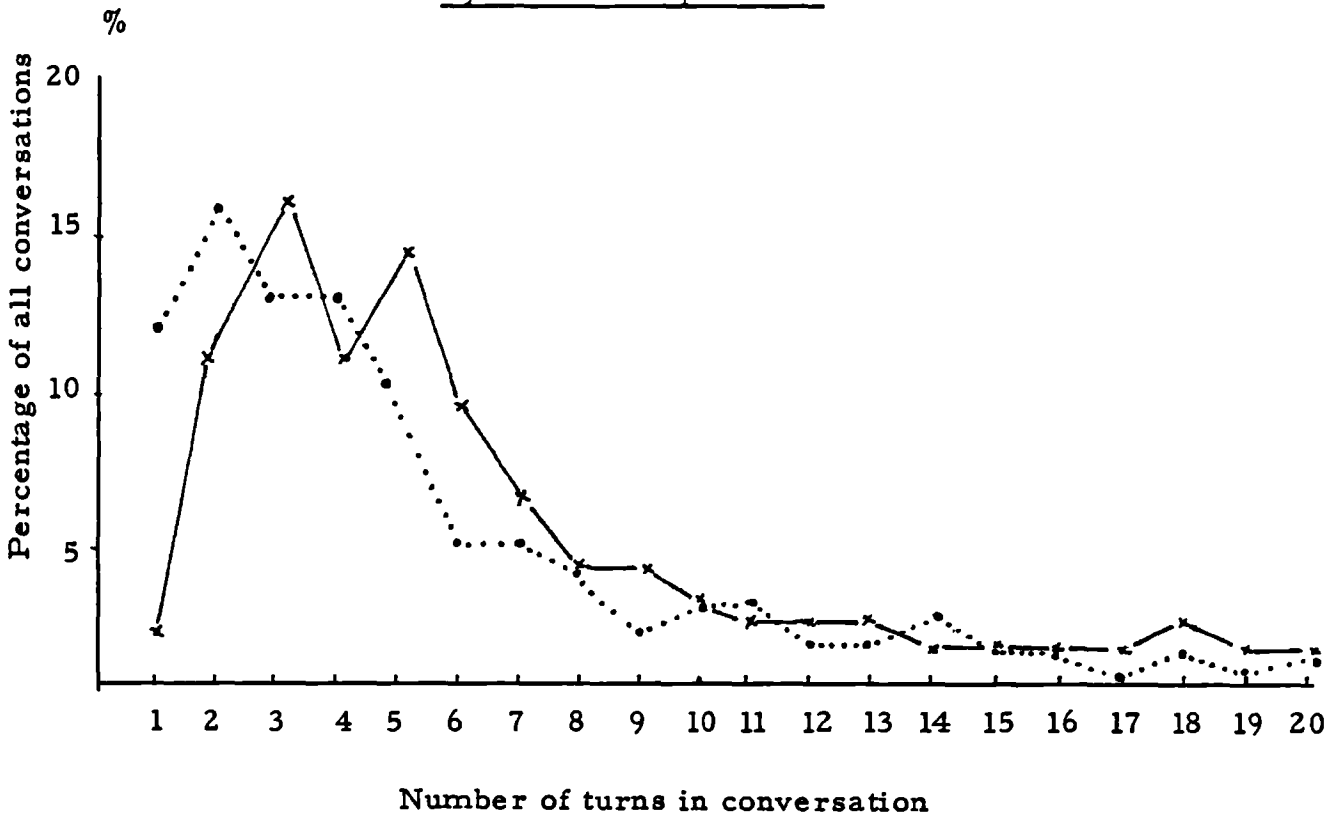
($n_8 = 127.2$; $\bar{x}$ 15.9

($n_{14} = 304.1$; $\bar{x}$ 21.72

Mann Whitney U = 40 (N.S.)

APPENDIX 5(f)

Distribution of the number of conversational 'turns' contributed by nurses and patients



key ..... = patient 'turns'

x——x = nurse 'turns'

APPENDIX 5(g)

'Tasks' most frequently associated with instances of NPC

Task	Number of times occurred in relation to NPC
No task	88
Drug round	40
Fluid balance/intake	33
I.V. infusion care	18
Bowel care - bedpans etc	17
Making beds	16
Washes/bed baths	15
T.P.R.	13
Dressing	13
Injection	11
Admissions	11
Serving food	11

APPENDIX 5(h)

The relationship between patient diagnosis and frequency of NPC

Diagnostic category	% of NPC	% of total patient population with diagnosis. (n= 616)
01 - vascular surgery	9.35	7.95
02 - gynaecological surgery	5.80	4.87
03 - orthopaedic surgery	4.19	3.89
04 - genito-urinary surgery	3.22	6.0
05 - minor surgery	10.96	13.79
06 - major abdominal surgery	36.45	26.13
07 - mastectomy	0.32	1.13
08 - endoscopy	9.35	11.85
09 - investigations	11.29	15.90
10 - miscellaneous	5.48	6.33
11 - terminal illness	2.90	2.11
	100%	100%

(x^2_{10} = 19.06, p=<.0.05)

APPENDIX 5(i)

Age distribution of patients in recorded sample compared with age distribution of all patients in wards during recording sessions

Age in years	Percentage of patients in recorded sample (n - 148)	Percentage of all patients in the wards (n - 616)
less than 20	2.02	2.59
20 - 29	8.10	10.22
30 - 39	5.42	7.46
40 - 49	13.51	12.66
50 - 59	14.86	14.12
60 - 69	18.24	19.64
70 +	37.83	33.27
	100%	100%

APPENDIX 5(j)

The frequency with which each point on each attribute was chosen by raters of random sample data

		%
Att. 1	Precise	49.8
	Neutral	15.3
	Vague	34.6
	Not applicable	0.2
Att.2	Patronising	34.0
	Neutral	39.2
	Deferent	25.5
	Not applicable	1.3
Att.3	Personal	36.9
	Neutral	26.6
	Impersonal	36.1
	Not applicable	0.4
Att.4	Friendly	64.9
	Neutral	26.3
	Unfriendly	8.5
	Not applicable	0.2
Att.5	Assertive	40.5
	Neutral	27.0
	Unassertive	32.2
	Not applicable	0.3
Att.6	Superficial	54.3
	Neutral	29.7
	Deep	15.3
	Not applicable	0.7
Att.7	Patient-oriented	31.1
	Neutral	21.7
	Task-oriented	46.7
	Not applicable	0.4
Att.8	Stereotyped	49.7
	Neutral	22.8
	Unstereotyped	27.3
	Not applicable	0.2
Att.9	Involved	25.4
	Neutral	19.6
	Uninvolved	54.3
	Not applicable	0.7
Att.10	Evasive	35.6
	Neutral	26.5
	Non-evasive	37.8
	Not applicable	0.1
Att.11	Appropriate	32.0
	Neutral	32.5
	Inappropriate	35.4
	Not applicable	0.1

APPENDIX 5(k)

The proportion of responses in random sample data for which raters reached over 65% agreement in terms of rating given

Att.1	Precise/Neutral/Vague	152/191	= 79.58%
Att.2	Patronising/Neutral/Deferent	101/191	= 52.87%
Att.3	Personal/Neutral/Impersonal	123/191	= 64.39%
Att.4	Friendly/Neutral/Unfriendly	165/191	= 86.31%
Att.5	Assertive/Neutral/Unassertive	95/191	= 49.73%
Att.6	Superficial/Neutral/Deep	145/191	= 75.92%
Att.7	Patient oriented/Neutral/Task oriented	159/191	= 83.23%
Att.8	Stereotyped/Neutral/Unstereotyped	149/191	= 78.01%
Att.9	Involved/Neutral/Uninvolved	144/191	= 75.39%
Att.10	Evasive/Neutral/Non-evasive	133/191	= 69.63%
Att.11	Appropriate/Neutral/Inappropriate	135/191	= 70.61%

APPENDIX 5(1)

N.P.C. rankings of 3 groups of raters, based on overall rating scores

Conversation no

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Group A (Nurses) n - 20	15	4	19	28	10	23	12	8-5	15	3	26	11	13	5.5	23	5.5	25	19	23	1	19	7	17	2	21	27	15	8.5
Group B (Nurses) n - 20	15	7	13	28	10	22	14	8	16	2	23	11	12	9	24	6	21	19	25	1	18	5	26	3	20	27	17	4
Group C (non-nurses) n - 20	18	5.5	18	27.5	10	24	11	8.5	8.5	3.5	25.5	18	1	15	25.5	7	21.5	18	21.5	2	14	5.5	23	3.5	18	27.5	12.5	12.5
combined ranks	16	4	17	28	11	23	12	7.5	13	2.5	26	14	9	10	25	6	22	19	24	1	18	5	21	2.5	20	27	15	7.5

Rankings 1 - "best" overall communication rating
28 - "worst" overall communication rating

APPENDIX 6

Published paper describing aspects of the research reported in this thesis.

1981 is *NT's* communication year. And this introductory article describes a research project which underlines the importance of teaching nurses the basic interpersonal skills

Communication in nursing

Jill Macleod Clark, BSc, SRN

THIS ARTICLE describes some findings from a research project which was designed to study one aspect of nurse-patient communication, namely what nurses and patients actually say to each other. Data were collected in the form of audiotaped and videotaped recordings of actual nurse-patient conversations, and these conversations were subsequently analysed in a number of different ways. As a result, it was possible to examine the patterns and structure of the conversations and to identify some verbal behaviours or 'strategies' used by nurses. A brief review is given here of the research methods used to collect the data and some of the findings which emerged when the data were analysed in terms of the patterns or structure of interactions. Examples are also given of the kinds of verbal behaviour or tactics which nurses were found to be using in conversation with patients.

Why do nurses need communication skills?

Most nurses recognise the importance of communication in their work and the need to improve communication in nursing is often emphasised (CNO, 1977). Nursing care of any kind *inevitably* involves constant and intimate contact with patients and relatives who will consequently be dependent upon the nurse's ability to communicate effectively. The current emphasis on 'total patient care' means that nurses must be as aware of the patient's emotional needs as they are of his physical needs. Recent years have also seen a move towards patient allocation and individualised care planning which will make increasing demands on nurses' interpersonal and communication skills.

In view of this, it is important to

ask whether we can take it for granted that nurses possess the necessary communication skills to give the kind of patient care advocated. For example, are nurses' interviewing skills adequate for taking a comprehensive nursing admission history? Are they observant and attentive enough to recognise patients' needs for information and for emotional or psychological support? If so, are they skilled enough to give the appropriate support?

Common sense dictates that the more contact nurses have with patients the more communication will take place. However, many people believe that the ability to communicate well is some kind of innate magical quality. Undoubtedly there are individual differences among nurses and some do seem more confident at 'dealing with people' than others. However, this does not mean that the communication skills of the less confident or competent cannot be developed or improved. Research has shown that it is possible to improve a range of communication skills through appropriate teaching (Tittmar *et al.* 1978; Pascoe *et al.*, 1976).

In nursing today a situation has arisen where in theory the need for communication and interpersonal skills is recognised but *in practice* little attention has been paid to the fact that communication involves skills which, like others, can and should be taught. As a general rule, relatively little time is spent during general nurse training in explicitly developing students' communication or interpersonal skills. The findings from the research described in this article suggest that there is a need to include the teaching of such skills in all nurse education programmes.

What is the role of verbal communication skills in nursing?

The range of behaviour encompassed by the term 'communication' is wide and some kind of communication occurs during every encounter a nurse has with patients or relatives. It can occur both verbally and non-verbally — through conversation as well as when one or more of the participants is silent. However, while all aspects of nurse-patient communication are important, the focus of this research has been the *verbal* interactions or exchanges that take place between nurses and patients. The term 'conversation' is used here to describe all such interactions although it will be seen that some of the exchanges may not deserve the label!

Conversations form a vital component of nursing, occuring either in their own right or in conjunction with physical care. The aim of such conversations can vary considerably; some will have the general purpose of providing patients or relatives with company, comfort, support or reassurance, whereas others may have much more specific objectives related to particular nursing tasks or procedures.

A breakdown of the current GNC syllabus contents illustrates well the many specific and general tasks nurses are expected to fulfil which involve the use of skilled verbal interaction. For example, the syllabus (GNC, 1977) states that nurses should become proficient at tasks such as the reception,

admission, transfer and discharge of patients, general pre-operative and postoperative care, preparation for self-care following discharge and the preparation of patients before procedures.

All these activities imply that nurses will possess or acquire verbal skills which will enable them to communicate effectively with patients. They also depend upon the existence and maintenance of some kind of dialogue between nurse and patient. This suggests that every nurse should be able to use a wide range of suitable 'verbal behaviour' or techniques which will help them to initiate, encourage and maintain verbal interaction with patients when this is appropriate. A possible repertoire would include being able to ask questions, listen, explore a topic, answer questions, encourage further conversation and recognise and respond to cues from patients.

What happens when nurses talk to patients?

The starting point for the research discussed here was an awareness that a gap may exist between the kind of communication skills implicitly advocated as desirable and necessary, and the reality of the nursing care being delivered at the bedside. Certainly, previous research by Stockwell (1972) and Faulkner (1979) has suggested that nurses do not spend much time talking with patients and that the conversations which do occur tend to be superficial and stereotyped. Moreover, an increasing number of the complaints about the NHS, received by the ombudsman (HMSO, 1979) reflect inadequate communication between nurses and patients.

Therefore the aim of this research was systematically to analyse data collected in the form of real-life conversations between nurses and patients on surgical wards. Surgical wards were chosen for two reasons. First, because of the variety of nursing procedures carried out on these wards, all of which involve nurse-patient verbal interaction, and second because of existing research findings such as those of Hayward (1975), Wilson-Barnett (1978) and Boore (1978), which have demonstrated the value of giving information to patients before they have surgery.

Research method

How the data were collected

The first problem encountered in research of this kind is that of finding the best method for collecting the information required. In this instance it was necessary to find a method of observing and recording real-life conversations on a surgical ward. This had to be done in a way which the nurses and patients would find acceptable and which would not be inconvenient or intrusive. Using observation or listening alone would result in a kaleidoscopic series of subjective impressions and a few snatches of conversations. More complex recording techniques have to be employed, but an obvious concern is that nurses and patients will become inhibited by the knowledge that their conversations are being recorded. Great care was therefore taken to ensure that this situation did not arise.

Exploratory work for the project included field work and participant observation on a general surgical ward, and many different methods of recording nurse-patient conversations were tried out. It was subsequently decided to collect data from surgical wards in three different hospitals in the form of audio and video tape-recordings, observation schedules, field notes and interviews with ward sisters.

Previous research has shown that people quickly become used to wearing a small microphone and audiotape recordings were made using a Sony tape cassette recorder (TC 1355D), a radio receiver, transformer and VHF transmitter (Audio 174.5). The transmitter is very small and can be carried in the nurse's pocket. The clip microphone is tiny and is attached to a suitable part of the uniform dress or apron.

The nurses on the wards took turns at being recorded and each one wore the microphone for approximately two hours. During this time all contact which that nurse had with patients was recorded. Both trained staff and student nurses participated in the data gathering and in this way a comprehensive record was collected of all types of nursing activity occurring on the wards studied.

Videotape recording is inevitably more intrusive — the equipment is bulky and the researcher must be involved in the actual recording process. However, it was found that patients and nurses rapidly adjusted to the presence of such equipment and indeed all participants actually claimed to enjoy being recorded. The good quality of recordings collected and the fact that the data become a permanent record of events make this a valuable research tool. In this study, a Sony U-Matic camera was used in conjunction with the radio microphone equipment described above. Videotape recording was undertaken by recording a range of specific nursing tasks including pre-operative preparation, postoperative care, admission, drug round and dressings.

The patients and nurses involved in this study were all informed about the recording procedures and were able to choose whether they wished to participate. All chose to take part and consent was routinely obtained.

Some findings

A sample of the audiotape recordings was taken to represent a full 7.45am-9.45pm working day for both trained staff and student nurse on each ward. All the one-to-one nurse-patient conversations (NPC occurring during this time were identified and transcribed. A transcript was also made of each of the nurse-patient conversations occurring during the nursing tasks recorded on videotape. The contents of the conversations were then analysed in several different ways. In this article only two of these methods of analysis are described — analysis in terms of the pattern or structure of the conversations and analysis in terms of verbal 'behaviours'.

(i) Analysis in terms of patterns or structure. Each transcribed conversation was coded according to many variables including its length, context, content, structure, time of day, nurse's rank, patients' diagnoses, age and sex, and so on. It was found that on the wards studied nurses only spent a small proportion of their time in actually talking to patients (Table 1). Indeed the picture given in this table is a generous estimate of 'talking-time' as each interaction was timed from the first utterance in an exchange until the final one and included any period of silence, when both participants were still present. Each two-hour session contained an average of 11.07 dyadic (that is, one-to-one) nurse-patient conversations (the range was from 3-24).

There were small differences between the male and female wards in terms of frequency of interaction. On the male wards the average for each two-hour session was 11.57 conversations. This compares with an average of 10.57 conversations per two-hour session on female wards. There was also a small

Table 1. *Duration of nurse-patient conversation (in min)*

	Average number of minutes per 2h	Average length of each conversation	Median length
Student nurses	21.72	2.01	1.13
Trained nurses	16.24	1.43	1.05

difference in the number of interactions occurring among staff nurses and student nurses — trained nurses in the sample averaged 11.35 (range = 7-15) dyadic conversations for each two-hour session, while student nurses had an average of 10.78 dyadic conversations in a two-hour period (range 3-24). These differences are not statistically significant.

A more realistic picture perhaps of the actual pattern of NPC is given in Fig 1. Here each conversation is represented in terms of the number of 'turns' occurring, ie, how many times the participants speak throughout the interaction. A turn can vary from something like a 'Mmm' to a three or four sentence monologue. It can be seen that over 50% of all NPC consisted of 10 'turns' or less, and the typical 'conversation' between nurse and patient is very short. Patients and nurses seem to share the number of 'turns' in a conversation fairly equally but if the number of words spoken in a NPC by each participant is considered it was found that overall, nurses spoke more than twice as much as patients.

Each transcribed conversation was also analysed in terms of the general focus or topic, and it was found that conversational content was very limited. For 75% of all NPC the substance of the conversation was related to aspects of treatment and care. A further 16.5% of all NPC was entirely devoted to the topic of 'intake or output'. Few conversations were entirely social and only 1.3% were concerned with emotional or psychosocial matters.

From this analysis it is possible to build a picture of the general characteristics of the conversations in terms of their length, context and content. This picture reinforces previous suggestions (Stockwell, 1972; Faulkner, 1979) that nurse-patient conversations tend to be short, often (but not always) occur in relation to tasks and, in content, are almost exclusively restricted to technical rather than emotional matters. Factors related to nurses' or patients' characteristics or to ward conditions which could influence nurse-patient conversations were examined. No relationship was found between any aspect of NPC and factors such as patients' age, social class, diagnoses, sex, or length of stay.

General characteristics such as 'busyness', number of staff on duty, rank of nurse, day of week and existence of screens were also examined to assess their impact on nurse-patient conversation. Neither the degree of busyness of a ward nor the number of staff on duty affected the amount of interaction in a systematic way. Only the presence of screens around the bed during a conversation correlated significantly with increased length of conversations.

(ii) Analysis in terms of verbal behaviour. As discussed earlier, it is clear that in order to carry out many aspects of nursing care a nurse needs to be able to employ a range of verbal skills. It was suggested that a possible repertoire would include the ability to ask appropriate questions, listen, explore a topic, maintain a conversation and recognise and respond to cues from patients. It is known that these are behaviours or techniques which can encourage a patient to converse (Ivey, 1971). However, during an early stage of the data analysis process groups of nurses were shown videotaped sequences and were given a sample of transcribed conversations and were asked to describe them. From this it emerged that a different kind of verbal behaviour was being recognised within the conversations — behaviours in fact which could effectively block or 'discourage' patients from conversing. These included the use of clichés, stereotyped or superficial comments, missing verbal or non-verbal cues and changing the subject.

As a result of these observations, two lists of verbal behaviours were drawn up, one consisting of techniques known to encourage or reinforce conversation and the other consisting of techniques which might discourage or 'block' the development of a conversation. The final list, shown in Table 2, consists of those behaviours which can be reliably recognised by independent coders. 'Open' questions are questions worded in such a way that the respondent is completely free to answer as he wishes, for instance, 'How are you?' A 'closed' question is one which the respondent's possible range of answers is limited, for instance, 'Are you feeling better?' to which the answer will be 'yes' or 'no'. A 'leading' question is one in which the questioner leads the respondent towards a desired or preferred answer, 'You are feeling better, aren't you?'

Reflection is a technique which

Fig 1. *Length of conversations (by 'turns')*

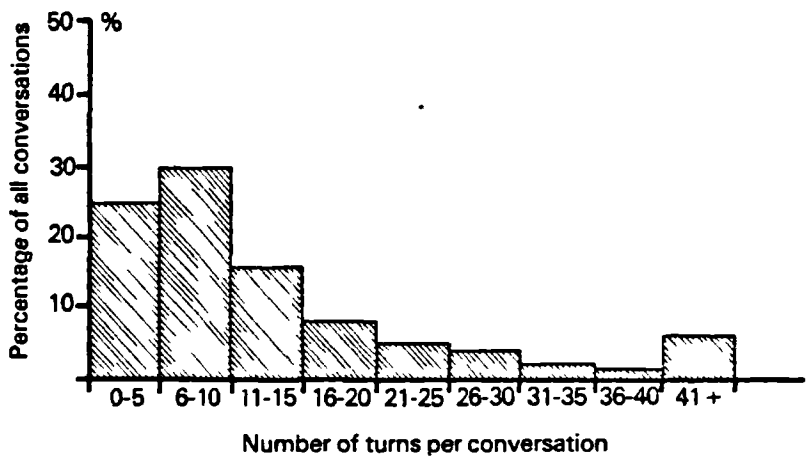


Table 2. *Identifiable techniques or behaviours*

(a) 'encouraging' or 'reinforcing'	(i) asking questions — open or closed (when appropriate). (ii) encouraging patient to continue — eg, go-ons, uh-hs (iii) using reflection/mirroring (iv) recognising and responding positively to cues, direct, indirect or implied questions.
(b) 'discouraging' or 'blocking'	(i) asking closed or leading questions (ii) missing or recognising *but* responding negatively to cues, direct, indirect, or implied question by use of cliché, maintaining superficiality, changing topic or subject, avoidance

involves picking up significant words or feelings from a patient and repeating them back in such a way that they encourage the patient to enlarge upon the topic or thought. For example, a patient might say 'I feel so worried', and the nurse could reply 'You feel worried?' which effectively encourages the patient to continue. In order to explore these verbal tactics, the audiotaped and videotaped recordings were coded by three coders. Each coder read every conversation and coded, (a) any instance of a direct question or indirect or implied question or 'cue'* from a patient, (b) any of the listed behaviours which could be identified. Coders agreed more than 90% of the time on most responses, and any instance where unanimous agreement could not be reached was excluded from analysis.

Further findings

The general picture which emerged was as follows. Patients asked few direct questions but asked many indirect or implied questions or made statements which were interpreted as cues. There were few examples of nurses asking genuinely 'open' questions, or of active encouragement or reinforcement. Very little evidence of the use of the technique of reflection was identified and few examples of *positive* response to cues were found. On the other hand there were many instances of nurses asking closed and leading questions and also of missing or avoiding indirect questions or cues. Some examples of each of these tactics are shown here. They are taken from the *actual* nurse-patient conversation recorded during the study.

*For the purposes of this analysis the term 'cue' refers to any statement or indirect question uttered by a patient which was reliably identified as having been made in the expectation (or hope) of some response from the nurse.

Encouraging communication — using open questions, encouragement/reinforcement, reflection, positive recognition of and response to cues, and so on.

In the extract which follows a staff nurse was allowing and encouraging the patient to respond as she wished and also to expand on the topic.

N *How do you feel?*
P *A lot better thanks.*
N *Do you?* (encouragement/reinforcement)
P *Yes, surprising as it was quite painful. I feel a lot better today.*

It can be seen from this example that asking an open question is only the first stage in encouraging a patient to communicate. It must be followed up with appropriate inducement to the patient to continue in the form of reinforcement or a technique such as reflection, as demonstrated in the following example.

N *How are you today?* (open question)
P *Well, I still feel sick.*
N *Sick?* (reflection)
P *Yes, well you know I'm scared to eat in case I really am sick.*

Here a second-year student encouraged the patient to elaborate on the problem by reflecting or mirroring the word 'sick'. The conversation continued for some time, and included practical suggestions for alleviating nausea and encouraging the patient to try to eat. In another example a third-year student nurse used the techniques of open questioning, reflection and reinforcement at the beginning of a conversation in which she quickly established that the patient was sleeping very badly.

N *How are you feeling today, Mr M—?* (open question)
P *Er. . . not so good*
N *Not so good today?* (reflection)
P *I woke up again last night.*
N *Did you?* (encouragement/reinforcement)

This kind of conversation was very rarely identified, although open questions themselves were often used by nurses to initiate conversations with patients. However, when examined closely it can be seen that these were not being used in a skilled fashion in order to encourage communication. Rather they were a ritual or stereotyped way of talking with patients. This is well illustrated by the following example where the question, being open, elicits a revealing answer from the patient but perhaps not the one the nurse wanted to hear!

N *How are you feeling this morning?* (open question)
P *Hungry.*
N *Ah well, I'm afraid there's nothing we can do about that, just at the moment* (block)
P *But. . . .*
N *You can have any fluids you like — but just stick on the fluid diet at the moment.*

Another common variation on the use of open questions is illustrated in the following extract.

N *How are you Mrs S—? How about something to drink?*
P *No.*
N *You haven't drunk very much at all this morning, try a sip.*
P *No.*

Although the nurse, a third-year student, technically asks an open question she did not wait for a reply, and effectively blocked any further communication with the patient. This conversation continued for a further six 'turns' without satisfactory resolution. It can be seen therefore that the process of effective communication is a continuing one. It is not enough simply to ask open questions — replies have to be listened to and responses used to encourage further communication.

A further type of behaviour which will encourage communication with patients is that of recognising and responding positively to patients' cues, direct questions, indirect questions and so on. When the conversations were analysed it was found that patients in fact ask relatively few direct questions and when they do, the questions are nearly always related to treatment. For example:

P *How much longer do I have to have*

these injections for?
N *The course lasts five days — when did you start having them?*

However, it was found that while there were few such direct questions, there were very many examples of statements made by patients which could be identified as cues, indirect or implied questions which seemed to be made in order for the patient to gain further information. Very few examples of nurses recognising and responding *positively* to such cues were found. Occasionally, as with open questions, nurses would respond tentatively to such a cue but then block it immediately afterwards as seen in the following extreme example. The nurse was a staff nurse, doing a drug round.

N *There we are dear, OK?* (gives tablet)
P *Thank you. Do you know, I can't feel anything with my fingers nowadays at all.,* (cue)
N *Can't you?* (minimal encouragement)
P *No, I go to pick up a knife and take my hand away and it's not there any more.*
N *Oh, broke my pen!* (moves away) (block)

Discouraging or blocking communication — using closed questions, leading questions, failing to recognise or responding negatively to cues, and so on.

It was found that, in the conversations analysed, repeated use was made of closed questions and leading questions. There are times, of course, when closed questions are appropriate, for example when gathering factual information. However when used consistently or habitually they become a powerful influence in controlling or blocking the development of a conversation. The next conversation between a staff nurse and female patient has examples of both closed and leading questions.

N *Did they find you an interesting case?* (closed question)
P *They did, yes.*
N *That's nice. Can I just rub your bottom then?* (closed question)
P *But they um . . .*
N *One, two, three . . . up. Not getting sore, sitting here, are you?* (leading question)
P *Well I am a little bit sore.*
N *Are you walking around a little bit with your bag so you don't get too sore?* (closed question)

Here it seems that the nurse is effectively limiting the direction in which the patient can move in the conversation by subtly showing her which replies she expects. The next example, occurred like the one above during the 'back round'.

N *Mrs W—? Are you comfortable where you are?* (closed question)
P *Yes, thank you.*
N *You are? Great.*
P *Not too warm, but . . .* (cue)
N *You don't want to get back into bed, do you?* (leading question).
P *No, not really.*

The patient was an old lady of 84 years with a fractured femur, and it is easy to see that she may have felt diffident about expressing any feelings of discomfort.

There were also many examples in the conversations of nurses asking a series of questions in quick succession as in the following example.

N *How are you Mrs R—? Are you all right now love? Do you want the blankets over you? Are you hot?*
P *No, the nurse . . . um, I don't know what she was going to do now. I don't know.*

It can be seen that this approach, although well-meaning, could leave the patient very confused and is most unlikely to result in effective communication. In the next extract the nurse was taking an admission history from the patient.

Her initial mode of questioning, using closed and leading questions, produced uninformative and monosyllabic responses. As soon as an open question was asked the atmosphere of the interview changed and the nurse began to learn a great deal more about the patient.

N *Do you have any problems with your appetite?* (closed question)
P *No, none at all.*
N *Hm, not at all — so you've got good appetite mainly?* (leading question)
P *Yes.*
N *You're not on a special diet?* (leading question)
P *No.*
N *What do you prefer to drink?* (open question)
P *Whisky.*
N *Whisky!*

Another strategy which can very effectively discourage communication is that of failing to recognise or responding negatively to patients' direct questions, cues, indirect or implied questions. This is a strategy which was frequently identified in the analysed conversations. One of the most common tactics in these situations was that of vagueness, as shown in the following example.

N *OK then, we'll pop you in the bath.*
P *What?*
N *Now, if there's a bathroom free I'll go and run your bath.*
P *How about this?* (pointing to colostomy)
N *What do you mean, how about this? Why, it's all right.*
P *No, but I mean about in the bath.*
N *Oh, it'll be all right.*
P *Will it?*
N *Yeah, it should be.*

The nurse in the above case was a junior student nurse who may have been unsure of how to advise the patient. However, in the next extract the nurse was a staff nurse who did have access to much more specific information.

N *Have you given it a good wash round the tube?* (catheter)
P *Yes I have. How long will it have to be in there? Do you know?*
N *Well, till they say it comes out I suppose. It shouldn't be long.*
P *I had one in there before, but only for two days . . .*
N *There we go.*

Another strategy sometimes used to respond negatively to a patient's question was that of 'changing the subject'. In the following example the nurse was a third-year student who was preparing the patient preoperatively.

N *You are not wearing any make-up at the moment, no hair clips?*
P *No.*
N *And the doctor showed you the green consent form?*
P *Yes, I signed it. I shall get out from here soon, shan't I, darling? Because they do send in a home nursing help when I get home, don't they?*
N *I'll leave you in peace now for a few minutes.*

There are, of course, other ways of responding negatively to a cue or question and one is demonstrated in the next conversation, where the patient was being given premedication prior to having an angiogram done under *local* anaesthetic.

N *Just wriggle your toes, it's all right.*
P *That's all you do?*
N *Yes, wriggle your toes.*

P *Last time I had this, I had a general anaesthetic* (cue)
N *Did you . . . general anaesthetic? Well. . .*
P *Yes, they said you'll never stand it without a general anaesthetic* (cue)
N *No, OK. Now don't get out of bed now, huh? All right. . .*
P *No.*
N *And we'll be along to take you very soon. We'll draw the curtains now so you can sleep . . .* (does so). *All right, see you later then, Mr B—.*

Here again the nurse, a staff nurse, is being generally vague. However she appears to recognise the first cue 'No, OK. Now . . .' but by failing to respond positively manages to avoid discussing the problem which is clearly worrying the patient.

Do nurses 'control' their conversations with patients?

As the extracts above illustrate, the nurses in the wards studied did appear to be using verbal tactics which could discourage or block communication with patients. These observations, together with the overall picture produced from the analysis of the structure of conversations, suggest that nurses somehow limit the scope of their conversations with patients. The results from analysing the conversations on additional dimensions undertaken during this research also reinforce this picture. Moreover, they support the findings of Faulkner (1980) who found that nurses admitted to avoiding patients' questions by 'inconsequential chat and keeping a distance'. It is suggested therefore that the nurses on the wards studied, consciously or subconsciously 'control' the length and content of their verbal interactions with patients.

What does this ability to 'block' conversation actually mean? A suitable analogy would involve comparing the conversation between a nurse and a patient with a maze. In the middle of this conversational maze, the patient has a wide range of possible decisions to take; to go left, right or straight on, forwards or back the way he came.

The patient can in theory choose between asking the nurse another question, or obediently nodding 'Oh I see' or 'a lot better, thank you'. But we have already seen that a nurse can use her tactical skills in communication to block off many of these alleyways. Such control can be achieved through the use of the verbal tactics or behaviours described in this article which have the effect of 'blocking' communication. These blocks can take the form of closed or leading questions which to a greater or lesser extent determine how a patient will respond to the nurse's question. For example, the leading question 'You don't want to get back into bed, do you?' may inhibit the patient from expressing any problems or worries, such as 'nurse, I've got a lot of pain in my leg', or 'I'm feeling rather tired'. The evidence collected indicates that nurses become so adept at this pattern of 'blocking off' routes in the patient's communication maze that they are easily able to lead the patient out of the conversation in as long or short a period of time as they choose, and by almost any direct or indirect route.

Blocks also occur when nurses fail to respond positively to direct questions, or to indirect or implied questions or to cues. It is interesting to note that, in this sample, patients in fact asked very few direct questions, a finding which may be a function of their diffidence or their anticipation of the nurse's blocking strategies.

Three key questions arising from the research

The findings of the research reported in this article raise a number of serious issues which extend beyond the particular conversations which were transcribed and analysed in the study. In particular, three key questions can be asked in relation to the findings:

1. Are the nurse-patient conversations observed in this sample and the behaviours and strategies pursued by the nurses 'typical' of all nurse-patient conversations? In other words, are these the kinds of things that most nurses say to patients and is this typical of the way in which nurses talk with patients? It is not possible to answer this kind of question by using statistical analysis. The findings outlined here can only illuminate certain aspects of nursing behaviour and through this illumination it is sometimes possible to recognise, describe and understand such behaviour more clearly.

To determine whether nurses do in fact generally 'control' nurse-patient conversations by using certain identifiable strategies, it would be necessary to undertake further research on new samples of nurses and patients. However, it is also possible for every reader of this article to take the idea and apply it to conversations that she herself has with patients, or even conversations that she overhears on the wards. Simply trying to identify instances of encouraging behaviour and instances of discouraging behaviour may prove a useful experience. This is the kind of exercise that nurses at all levels should undertake if they are to build up their ability to communicate with patients.

2. The second important question is as follows. Assuming that nurses do use certain tactics to 'control' conversations, is this behaviour conscious or is it subconscious? In order to attempt to answer such a question it is necessary to explore the whole area of how nurses 'learn' to talk to patients. In theory, it is possible to learn a skill in several different ways including training, practice and imitation or role modelling. In nurse education it is unusual to find students being 'trained in' or actually practising 'skills' of talking to patients and it therefore seems more likely that nurses learn such behaviour from some kind of role modelling — by listening and observing how other nurses deal with, or communicate with patients. If this is the case then it is likely that the kinds of 'controlling' strategies described in my research have been acquired unconsciously.

This explanation is supported by the fact that the analysis of all conversations during this research has produced a picture of uniform and stereotyped interactions between nurses and patients. In other words, the content of conversation was limited and the structure tended to follow a consistent pattern. In addition, when independent raters were asked to evaluate the conversations from transcripts and videotapes in another stage of this research, the consistency of their ratings was striking. If controlling strategies are developed subconsciously by nurses, then what is needed is some means of making nurses aware of them; and of helping them to develop skills which extend their repertoire in conversation. This would enable them, for example, consciously to give patients every opportunity to express themselves and their anxieties and to ask questions.

3. The third question is closely related to the previous one and is concerned with *why* such 'control' in

conversations occurs. The answer to such a question will clearly be related to whether the behaviour is deliberate or unconscious. It was suggested many years ago by Menzies (1960) that much of nursing is task-oriented in order to protect nurses from the anxiety or stress of over-involvement with patients. Equally it may be that nurses feel they are 'not allowed' to give patients information, or at the very least are anxious not to give inaccurate or conflicting information or advice.

Both of these explanations are reasonable and indeed it may be that in certain circumstances it is necessary for nurses to protect themselves from stress or conflict. However, in the data collected during this research many of the situations where nurses appeared to be 'blocking' were *not* apparently stressful. Reassuring a patient and allaying his fears, for example about having an investigation under local anaesthetic instead of a general anaesthetic should, arguably, be a vital aspect of nursing care. However, as illustrated in the last example, the staff nurse did not respond to the patient's cues.

It is difficult to imagine that any nurse would deliberately ignore a patient's anxiety in these circumstances and it is perhaps more likely that the nurse was behaving in an automatic way simply from habit. It is possible that such habits are so well learned that nurses often simply do not take in what patients are saying. This is made more complicated by the fact that, assuming the patients in the sample are typical, patients often behave diffidently and resort to asking tentative or indirect questions or never do more than simply drop hints.

Implications

Communication and nursing care

There can be few more potentially telling indicators of the standard of nursing care which patients receive than the quality and quantity of the communication which occurs between nurses and patients. As discussed in the introduction to this article, many nursing tasks and procedures, and indeed the whole of nursing care implicitly involves an ability to communicate effectively with patients. As a result, the conclusions from this research raise some important philosophical issues. Certainly in many of the conversations recorded the all-pervasive superficial and stereotyped language which could be termed 'nurse-ese' seems to go against the whole ethos of caring. What is perhaps most interesting is that nurses use blocking tactics even when there is little apparent threat of involvement or distress.

Lip-service is paid to the fact that nursing includes the care of patients' emotional and psychological needs. However, it will not be possible for nurses to give this care unless they listen to patients and encourage them to express their needs and feelings. It is part of a nurse's professional responsibility to give information, answer questions, educate, advise and allay anxiety. If they are to do this, nurses will have to take the risk of closer contact with patients, and accept that they will not always know all the answers and will sometimes feel uncomfortable or threatened. It may be that a choice has to be made by every nurse between protecting herself and helping the patient.

The need for education in communication skills

During the course of undertaking this research I have been struck by an apparent contradiction surrounding the fact that although 'communication' is central to the whole of nursing, it is an aspect which is almost never explicitly taught. Indeed, many nurses and their teachers will argue that this a skill which cannot be taught — one is either born with it or not. However, the research described here calls this into serious question. Can all nurses be born with the ability to control and to block conversations? And do they realise that this is what they are actually doing?

Many of the verbal behaviours which I have focussed upon in this article are clearly open to further research, discussion and change. It may be necessary for teachers and ward staff to take up the challenge of examining, analysing and changing this aspect of nursing care if patients' needs are to be met. It is appreciated that, in doing so, nurses will run the risk of becoming more 'involved' with patients. This has additional implications in terms of the need for teachers and experienced ward staff to provide the support which nurses will require if they are to really 'communicate' with their patients.

Conclusions

The process of analysing nurse-patient conversations explored in this research could, if developed further, have practical application to the improvement of communication in patient care. The data base of real-life nurse-patient conversations gathered during this project can provide a wealth of material for both teaching and further research and some of the findings may have specific value in relation to the teaching and assessment of nurses' interpersonal skills. The findings also suggest that it may be essential to become more aware of the communication aspect of professional skills and to generate an impetus for change in education and practice. In particular, the identification of various strategies used by nurses when talking to patients, could provide a tangible starting point for understanding communication in nursing.

This research was undertaken while the author was a research fellow, supported by a DHSS Nursing Research Fellowship and based at the Department of Nursing Studies, Chelsea College, London. Thanks are due to all the patients and staff who participated in the study.

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